

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE s PATENT TRIAL AND APPEAL BOARD

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TOAST, INC.,  
Petitioner,

v.

GRATUITY, LLC,  
Patent Owner.

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IPR2023-01408  
Patent 9,741,050 B2

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Before MEREDITH C. PETRAVICK, CYNTHIA L. MURPHY, and  
JASON W. MELVIN, *Administrative Patent Judges*.

MURPHY, *Administrative Patent Judge*.

DECISION  
Granting Institution of *Inter Partes* Review  
35 U.S.C. § 314

## I. INTRODUCTION

### A. *Background and Summary*

Toast, Inc. (“Petitioner”) filed a Petition to institute *inter partes* review of claims 1–13 of U.S. Patent No. 9,741,050 (Ex. 1001, “the ‘050 Patent”). Paper 2 (“Pet.”). ATI Technologies ULC (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Prelim. Resp”). Petitioner filed a Preliminary Reply (Paper 9 (“Prelim. Reply”)) and Patent Owner filed a Preliminary Sur-Reply (Paper 10 (“Prelim. Sur-Reply”)).

Under 35 U.S.C. § 314(a), an *inter partes* review may not be instituted unless the information presented in the petition “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.”

After considering the Petition, the Preliminary Response, and the evidence of record, we determine the information presented shows a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of at least one of challenged claims 1–13 of the ‘050 Patent.

We institute an *inter partes* review of all challenged claims of the ‘050 Patent on the grounds asserted in the Petition.

### B. *Real Parties-in-Interest*

The parties identify themselves as the real-parties-in-interest. *See* Pet. 2; Paper 5, 2.

### C. *Related Matter*

The parties each identify an action (*Gratuity Solutions, LLC v. Toast, Inc.*, No. 1:22 cv11539) pending in the District Court for the District of

Massachusetts (“the District Court Litigation”) as a parallel district court proceeding. *See* Pet. 2; Paper 5, 2.

*D. The '050 Patent*

The '050 Patent relates to a computer-implemented system “for managing gratuities.” Ex. 1001, 1:13–14, *see also id.* at 1:45–46.

The '050 Patent explains, by way of background, that a restaurant customer “gives a gratuity” to their waiter/waitress, “or adds the gratuity to the amount paid for the meal.” *Id.* at 1:30–32. In such a restaurant setting, although the customer may have primarily interacted with their waiter/waitress, “other employees” (e.g., “a host,” “a busser,” “a food runner,” “a bartender”) “assisted in varying degrees in supporting the service provided to the customer.” *Id.* at 1:21–28. The gratuity “may be shared among the employees who assisted in providing service to the customer.” *Id.* at 1:32–35. “The management of gratuities for a given business or organization may be defined by the customs and practices of the business as well as applicable regulations.” *Id.* at 5:12–14.

Per the '050 Patent, prior to the disclosed computer-implemented system, “[t]he sharing of gratuities” was often “manually calculated and documented with ad hoc record keeping, complicating compliance with labor tax and labor regulations.” *Id.* at 1:36–39.

The '050 Patent discloses a “gratuity management system 100” that “determines how to allocate the gratuities collected by or on behalf of the gratuity-generating employees among the gratuity-receiving employees based upon the transaction information, employee information, and distribution rules for the given business.” *Id.* at 5:49–54.

“[T]he gratuity management system 100 may interface with one or more components” of a “restaurant management system 108 to acquire the necessary transaction and employee information.” *Id.* at 4:56–59.

*E. Illustrative Claim*

Petitioner challenges claims 1–13 of the ’050 Patent. Claims 1 and 8 are independent, claims 2–7 depend directly or indirectly from claim 1, and claims 9–13 depend directly or indirectly from claim 8. Claim 1 is illustrative and reproduced below.

1. A system, comprising:

a. a gratuity management system, comprising

1. a server coupled to a computer network and accessible by a plurality of clients, the server being configurable to independently execute gratuity distribution rules on a client-by-client basis; and

2. a database, accessible by the server; and

b. a plurality of client business systems in electronic communication with the server of the gratuity management system, each of the client business systems corresponding to one of the plurality of clients, each client business system comprising:

1. at least one point of sale server; and

2. a gratuity sync client application installed on the respective client business system;

wherein the gratuity sync client application on each client business system is configured to extract transaction information and employee information from the client business system and to initiate transfer of the extracted information to the gratuity management system;

wherein the gratuity management system is a cloud computing system remote from the plurality of client business systems and configured to receive the extracted transaction information and employee information from the plurality of client business systems and to store the received extracted information in the database; and

wherein the gratuity management system is further configured to execute, independently for each client, gratuity distribution rules for allocating gratuities among at least a portion of the employees and to determine a gratuity allocation based on at least the received extracted transaction information, the received extracted employee information, and the gratuity distribution rules and return the gratuity allocation to the gratuity sync client application of each respective client business system, without requiring the client business systems to execute the gratuity distribution rules.

Ex. 1001, 22:37–23:8.

*F. Evidence and Asserted Grounds*

Ground	Claims Challenged	35 U.S.C. <sup>1</sup>	References
One	1–3, 8, 10	35 U.S.C. 103	Marshall <sup>2</sup>
Two	4–7, 9, 11–13	35 U.S.C. 103	Marschall in view of Webb <sup>3</sup>
Three	1–3, 8, 10	35 U.S.C. 103	Phillips <sup>4</sup> in view of Marshall
Four	4–7, 9, 11–13	35 U.S.C. 103	Phillips in view of Marshall and Webb

Pet. 4. Petitioner relies upon the Declaration of Samuel H. Russ Ph.D. (Ex. 1002) to support its analysis.

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<sup>1</sup> The Leahy-Smith America Invents Act (“AIA”) included revisions to 35 U.S.C. § 103 that became effective on March 16, 2013. We apply the pre-AIA version of § 103 here, because the application identified in the ’050 Patent was filed before the effective date of the AIA. *See* Ex. 1001, code (21).

<sup>2</sup> Ex. 1004.

<sup>3</sup> Ex. 1006.

<sup>4</sup> Ex. 1005

## II. ANALYSIS

### A. 35 U.S.C. § 314(a)

Patent Owner argues that we should exercise our discretion under 35 U.S.C. § 314(a) to deny the Petition in light of the District Court Litigation. *See* Prelim. Resp. 4–14.

Under § 314(a), we have discretion to deny institution of an *inter partes* review. *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2140 (2016). We consider several factors when determining whether to deny institution under § 314(a) based on a parallel district court proceeding, specifically

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.

*Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 5–6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”). In evaluating these factors, we “take[ ] a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” *Id.* at 6. We also consider “several clarifications” made by the Director of the United States Patent and

Trademark Office (“USPTO”). *See* USPTO Memorandum, Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation, 2 (June 21, 2022), *available at* [https://www.uspto.gov/sites/default/files/documents/interim\\_proc\\_discretionary\\_denials\\_aia\\_parallel\\_district\\_court\\_litigation\\_memo\\_20220621.pdf](https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621.pdf) (“*Fintiv* Memo”).

1. *Factor 1: whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted*

Under the first *Fintiv* factor, we consider “whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted.” *Fintiv*, Paper 11 at 6. Petitioner and Patent Owner agree that neither party has requested a stay in the district court proceeding. *See* Pet. 69; Prelim. Resp. 7.

As a result, we determine that the first *Fintiv* factor is neutral.

2. *Factor 2: proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision*

Under the second *Fintiv* factor, we consider the “proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision.” *Fintiv*, Paper 11 at 6.

At the time the Petition was filed (September 18, 2023), the trial date set for the District Court Litigation (i.e., March 24, 2025) was at or around the same time as the projected statutory deadline for our final written decision (i.e., March 29, 2025). *See* Pet. 69; Prelim. Resp. 8; Ex 1024, 7. Where the trial date and the projected date of our final written decision are at or around the same time, the efficiency and fairness concerns that underlie

the *Fintiv* analysis are not as strong, and the decision whether to institute will instead implicate other factors. *See Fintiv*, Paper 11 at 9.

After the Petition was filed, however, circumstances arose that Petitioner contends cause the trial date of March 24, 2025 to be “unlikely to hold.” Prelim. Reply 1. On January 16, 2024, the district court action was reassigned to a Judge Julia E. Kobick. *See Exs.* 1030, 1031. On January 19, 2024, Judge Kobick reset the *Markman* hearing (originally scheduled for March 18, 2024) to May 6, 2024. *See Ex.* 1032. We, thus, agree with the Petitioner that the March 24, 2025 trial date is unlikely to hold. Petitioner also presents evidence that the median time between a *Markman* hearing and the court issuing a *Markman* order is 4.1 months (Ex. 1033) while the average time is 8 months. *See Ex.* 1033. According to Petitioner, all other relevant dates will need to be shifted, whereby “trial will occur well after the statutory dateline for a final written opinion.” Prelim. Reply 2.<sup>5</sup>

As a result, we determine that the second *Fintiv* factor weighs against discretionary denial of institution.

3. *Factor 3: investment in the parallel proceeding by the court and the parties*

Under the third *Fintiv* factor, we consider the “investment in the parallel proceeding by the court and the parties.” *Fintiv*, Paper 11 at 6. If, at the time of the institution decision, the district court has issued substantive orders related to the challenged patent, such as a claim construction order, this fact weighs in favor of denial. *See Fintiv*, Paper 11 at 9–10. On the other

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<sup>5</sup> Although Patent Owner contends that the district court intends “to maintain the present trial date” (Prelim. Sur-Reply 1), Patent Owner offers us no evidence to support this contention.



hand, if the district court has not issued such orders, this fact weighs against discretionary denial. *Id.* at 10.

Petitioner argues that “the early stage of this case weighs heavily against discretionary denial.” Pet. 70. As indicated above, the *Markman* hearing has not yet occurred and has been reset for May 6, 2024. *See* Ex. 1032. According to Petitioner, “under these circumstances, the district court is unlikely to invest significant resources or issue substantive orders related to the challenged patent prior to the issuance of an institution decision.” Pet. 70.

Patent Owner argues that “[t]he district court and parties have invested substantial effort.” Prelim. Resp. 9. According to Patent Owner, “the district court dedicated significant time and resources” addressing a motion to dismiss under 35 U.S.C. § 101. Prelim. Sur-Reply 2. Patent Owner also asserts that the parties “are in the midst of preparing response briefing, including the depositions of experts, leading up to the *Markman* hearing of May 6, 2024.” *Id.* Patent Owner further asserts that it has served “84 requests for documents and 13 interrogatories.” *Id.*

The evidence of record indicates that the district court and the parties have invested some resources in the related litigation as to issues of unpatentability involving the '050 Patent, but that much work remains in the district court as it relates to invalidity based on prior art grounds. *See Sand Revolution II, LLC v. Continental Intermodal Grp. – Trucking LLC*, IPR2019-01393, Paper 24 at 11 (PTAB June 16, 2020) (informative) (“[W]e recognize that much work remains in the district court case as it relates to invalidity: fact discovery is still ongoing, expert reports are not yet due, and substantive motion practice is yet to come.”).

Additionally, *Fintiv* directs us to consider whether “the petitioner filed the petition expeditiously.” *Fintiv*, Paper 11 at 11. If the evidence shows that the petitioner filed the petition expeditiously, such as promptly after becoming aware of the claims being asserted, this fact has weighed against exercising the authority to deny institution. If, however, the evidence shows that the petitioner did not file the petition expeditiously, such as at or around the same time that the patent owner responds to the petitioner’s invalidity contentions, or even if the petitioner cannot explain the delay in filing its petition, these facts have favored denial. *Fintiv*, Paper 11 at 11–12.

Patent Owner also argued in its Preliminary Response that “Petitioner’s delay in filing the instant Petitioner remains unexplained.” Prelim. Resp. 9. However, Petitioner subsequently explains that Patent Owner “did not identify the asserted claims until September 1, 2023” and, thereafter, the Petition was “promptly filed” on September 18, 2023. Paper 9, 2; *see also* Ex. 1007. Patent Owner does not question this explanation. *See* Paper 10, 1–3.

Considering the facts as a whole, we determine that the third *Fintiv* factor weighs against discretionary denial of institution.

4. *Factor 4: overlap between issues raised in the petition and in the parallel proceeding*

Under the fourth *Fintiv* factor, we consider the “overlap between issues raised in the petition and in the parallel proceeding.” *Fintiv*, Paper 11 at 6.

Petitioner appears to acknowledge that such an overlap exists, but contends that “it will be estopped from raising” overlapping grounds in the District Court Litigation. Pet. 70; *see also* 35 U.S.C. § 315(e)(2). Patent

Owner argues that Petitioner’s position “ignores the timing of the two proceedings, as the estoppel provision only applies after the FWD is rendered.” Prelim Resp. 12. But as discussed above in connection with the second *Fintiv* factor, Petitioner presents evidence that “trial will occur well after the statutory dateline for a final written opinion.” Prelim. Reply 2.

Thus, this factor weighs slightly against institution.

5. *Factor 5: whether the petitioner and the defendant in the parallel proceeding are the same party*

Under the fifth *Fintiv* factor, we consider “whether the petitioner and the defendant in the parallel proceeding are the same party.” *Fintiv*, Paper 11 at 6. Here, the Petitioner and the defendant are the same party. *See* Pet. 71, Prelim. Resp. 13.

Under these circumstances, we determine that the fifth *Fintiv* factor slightly favors discretionary denial of institution.

6. *Factor 6: other circumstances that impact the Board’s exercise of discretion, including the merits*

Under the sixth *Fintiv* factor, we consider “other circumstances that impact the Board’s exercise of discretion, including the merits.” *Fintiv*, Paper 11 at 6. “[W]here the PTAB determines that the information presented at the institution stage presents a compelling unpatentability challenge, that determination alone demonstrates that the PTAB should not discretionarily deny institution under *Fintiv*.” *Fintiv* Memo 4–5.

Petitioner asserts that the merits of the Petition are strong. Pet. 71. Patent Owner asserts the opposite that the merits of the Petitioner are weak. Prelim. Resp. 14. In as much as these arguments may be construed to be

directed to whether the Petitioner has shown compelling merits, we do not need to reach them.

On balance, we determine that *Fintiv* factors 1–5 do not favor discretionary denial of institution. In particular, we determine that factors 2–4 weigh against denial of institution and factor 5, which is the lone factor favoring denial of institution, does not outweigh factors 2–4. Factor 1 is neutral. As a result, we need not decide whether Petitioner presents a compelling unpatentability challenge. *See CommScope Techs. LLC v. Dali Wireless, Inc.*, IPR2022-01242, Paper 23 at 4–5 (PTAB Feb. 27, 2023) (decision on Director review) (precedential) (“[I]n circumstances where the Board determines that the other *Fintiv* factors 1–5 do not favor discretionary denial, the Board shall decline to discretionarily deny under *Fintiv* without reaching the compelling merits analysis.”).

#### 7. Summary

Based on our holistic view of the *Fintiv* factors, we decline to exercise our discretion under § 314(a) to deny the Petition.

#### B. 35 U.S.C. § 325(d)

Patent Owner argues that the Petition should be denied under 35 U.S.C. § 325(d). Prelim. Resp. 18–22. In determining whether to deny institution under § 325(d), we use the following two-part framework: (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of [the] first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims. *Advanced Bionics, LLC v. MED-EL*

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*Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential).

Under § 325(d), the art and arguments must have been previously presented to the Office during proceedings, such as examination of the underlying patent application, pertaining to the challenged patent. *Advanced Bionics*, Paper 6 at 7. Previously presented art includes art made of record by the Examiner, and art provided to the Office by an applicant, such as on an Information Disclosure Statement (“IDS”), in the prosecution history of the challenged patent. *Id.* at 7–8.

1. *Part 1*

Under the first part of the *Advanced Bionics* framework, we consider “whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office.” *Id.* at 8. We evaluate *Becton, Dickinson* factors (a), (b), and (d) to determine whether Petitioner has demonstrated material error. *Id.* at 10. Those factors are:

- (a) the similarities and material differences between the asserted art and the prior art involved during examination;
- (b) the cumulative nature of the asserted art and the prior art evaluated during examination; and
- (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art.

*Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 at 17–18 (PTAB Dec. 15, 2017) (precedential as to § III.C.5, first paragraph).

Previously presented art includes art made of record by the Examiner, and art provided to the Office by an applicant, such as on an IDS, in the prosecution history of the challenged patent. *Id.* at 7–8. Here, it is not disputed that Marshall, Phillips, and Web were previously presented to the Office. *See* Pet. 67; Prelim. Resp. 19; Ex. 1001, code (56).

Because Marshall, Phillips, and Webb were previously presented to the Office and form the basis for all of the grounds, we determine that the first part of the *Advanced Bionics* framework is satisfied. We turn to whether Petitioner demonstrates that the Office erred in a manner material to the patentability of the challenged claims when it considered Marshall, Phillips, and Webb.

## 2. Part 2

Under the second part of the *Advanced Bionics* framework, we consider “whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.” *Advanced Bionics*, Paper 6 at 8. “An example of a material error may include misapprehending or overlooking specific teachings of the relevant prior art where those teachings impact patentability of the challenged claims.” *Id.* at 8 n.9. We evaluate *Becton, Dickinson* factors (c), (e), and (f) to determine whether Petitioner has demonstrated material error. *Id.* at 10. Those factors are:

- (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection;
- (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and

(f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

*Becton, Dickinson*, Paper 8 at 17–18.

Petitioner argues that “the Examiner erred by failing to consider Marshall (alone and with Phillips and Webb) when addressing the claims added during prosecution that ultimately issued as the Challenged Claims.” Pet. 68. As pointed out by Petitioner, “Marshall was never considered by the Examiner” against the claims that ultimately issued as claims 1–13 of the ‘050 Patent. Pet. 67, *see also* Ex. 1008, 263–289, 323–353. As also pointed out by Petitioner, “even when the Examiner considered Marshall” against claims that were subsequently cancelled, “he considered Marshall only as a secondary reference.” Pet. 67, *see also* Ex. 1008, 203–236, 263–289, 323–353.

Patent Owner argues that Petitioner “fails to provide an adequate explanation as to how the examiner erred.” Prelim. Resp. 22. Patent Owner contends that Petitioner’s explanation “makes no sense,” and is “both conclusory and unconvincing.” *Id.* We disagree with Patent Owner’s characterization of the Petitioner’s position, especially because it is supported by prosecution history of the ‘050 Patent. (*See* Ex. 1008, 203–236, 263–289, 323–353.)

Patent Owner also argues that the prosecution history of the ‘050 Patent “establishes that the Examiner reviewed Marshall thoroughly and applied it against the claims, some of which he rejected and other he later allowed.” *Id.* at 21. To support this argument, Patent Owner points to findings made by the Examiner during prosecution of the ‘050 Patent. *See id.* at 20. These findings, however, related to the Examiner’s rejections

against claims that were subsequently cancelled. *See* Ex. 1008, 203–224. And these findings were made in conjunction with Marshall being applied as a secondary reference to reject those claims. *See id.* The Examiner rejected those claims over a combination of three prior art references (Kessler, Delany, and Tidwell), and added Marshall, in lieu of using official notice, to show that it was known in the art to configure a processor to execute computer executable instruction stored in a memory. *See id.* at 211–214. Thus, these findings do not contradict Petitioner’s position that overlooking Marshall as primary obviousness reference in connection with the Challenged Claims was a material error.

The prosecution history does not sufficiently show that the Examiner considered Marshall, Philips, Web, or the combinations of these references asserted in the Petition, with respect to the claims that issued as the ’050 Patent. In particular, the Examiner asserted as Reasons for Allowance that the prior art did not teach

wherein the payment management system is further configured to execute, independently for each client, payment distribution rules based on at least the received extracted information and the independently configured payment distribution rules to generate payment information and return the payment information to the interface component of respective client business systems, without requiring the respective client business systems to execute the payment distribution rules

in combination with the other limitations of original independent claims 30 and 39 (i.e., issued claims 1 and 8). Ex. 1008, 430–433. On this record we determine that the Examiner erred because as shown in the Petition, Marshall and Philips in combination with Marshall teaches this limitation. Pet. 19–20, 54–55. We note that Petitioner’s analysis is supported by a



Declaration of Samuel H. Russ, Ph.D. (Ex. 1002), and the Examiner did not have the benefit of Dr. Russ's testimony.

### 3. *Summary*

For the reasons discussed above, we decline to exercise our discretion under § 325(d) to deny the Petition.

#### C. *Legal Standards*

A claim is unpatentable under § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). “[W]hen a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.” *KSR*, 550 U.S. at 416 (citing *U.S. v. Adams*, 383 U.S. 39, 50–51 (1966)). The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) when in evidence, objective indicia of non-obviousness (i.e., secondary considerations). *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Here, the record contains no evidence of objective indicia of non-obviousness.

#### D. *Level of Ordinary Skill in the Art*

The level of skill in the art is a factual determination that provides a primary guarantee of objectivity in an obviousness analysis. *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 1324 (Fed. Cir. 1999) (citing *Graham*,

383 U.S. at 17–18; *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718 (Fed. Cir. 1991)). In determining the level of ordinary skill in the art, various factors may be considered, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citation omitted).

Petitioner proposes that a person of ordinary skill in the art (“POSITA”) would have “an undergraduate degree in electrical engineering, computer engineering, computer science, or an equivalent degree with two to three years of experience in point of sale systems, time management systems, and/or restaurant management computer systems, and in networking and client-server architectures.” Pet. 9–10. For purposes of institution, we apply this proposed level of skill because, on the current record, it is presently undisputed by Patent Owner (*see* Prelim. Resp. 6, 3–4)<sup>6</sup> and consistent with the level of skill at the time of the claimed invention reflected by the ‘050 Patent and the cited prior art references. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).<sup>7</sup>

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<sup>6</sup> Patent Owner “reserve[s] the right to contest all issues related to the level of ordinary skill.” Prelim. Resp. 6, 3.

<sup>7</sup> Petitioner also contends that “[t]o the extent necessary, a POSITA may collaborate with one or more other persons of skill in another art for one or more aspects with which the other person may have expertise, experience, and/or knowledge that was obtained through his/her own education, industrial or academic experience.” Pet. 9–10. Patent Owner disagrees with Petitioner with respect to this particular contention and asserts that “[t]o the extent that Petitioner’s arguments rely upon a ‘team’ of skilled artisans, they should be rejected.” *See* Prelim. Resp. 3–4. We note that our decision to

*E. Claim Construction*

We apply the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b). Under that standard, claim terms “are generally given their ordinary and customary meaning” as would have been understood by a person of ordinary skill in the art at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc). In construing claims in accordance with their ordinary and customary meaning, we take into account the specification and prosecution history. *Phillips*, 415 F.3d at 1315–17.<sup>8</sup>

We determine that, for the purposes of institution, no express claim construction is necessary for any claim terms. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (holding that only claim terms in controversy need to be construed, and only to the extent necessary to resolve the controversy (citing *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

*F. Ground One: Unpatentability over Marshall*

Petitioner asserts that claims 1–13 are unpatentable over Marshall. *See* Pet. 14–36.

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institute does not rely upon a team of skilled artisans, whereby we need not address this disagreement at the present time.

<sup>8</sup> Petitioner “does not currently believe that it is necessary for the Board to construe any claims,” and does not offer any specific claim-term constructions. Pet. 10. Patent Owner finds fault with Petitioner’s position in this regard, but likewise does not offer any specific claim-term constructions. *See* Paper 6, 4–5.

*1. Summary of Marshall*

Marshall discloses a computer-implemented system “for recording, maintaining, and reporting tips and gratuities including tips and gratuities transferred between individuals.” Ex. 1004, ¶ 9.

Marshall also discloses Gratuity Reporting and Tip Allocation Software (“GrataSoft”) that can be used to input declared tip and/or gratuity information and tipout information via a standard PC interface. Ex. 1004, ¶¶ 95, 105–06. This software includes tools to allocate tips “to individual employees based upon criteria such as hours worked, employee’s gross sales, task performed and meal period worked.” *Id.* ¶ 213. Marshall’s system “interfaces to third party systems such as POS systems, payroll systems, and the like,” and can “be implemented in a Web-based manner.” *Id.*, Abstract, ¶ 102. Such internet applications “facilitate upload of employee information such as declared tips, contributed and/or received tipouts, 4070 forms, 4070A forms, and the like to the employee’s employer(s).” *Id.* ¶ 104.

*2. Analysis of Independent Claim 1*

Petitioner asserts that independent claim 1 is unpatentable over Marshall. Pet. 14–28.

*a) gratuity management system*

Independent claim 1 sets forth “[a] system” comprising “a gratuity management system” and “a plurality of client business systems.” Ex. 1001, 22:38–45. “[E]ach of the client business systems correspond[s] to one of [a] plurality of clients.” *Id.* at 22:46–48. For the purposes of institution, Petitioner adequately establishes that Marshall would have suggested these claimed features to POSITA. *See* Pet. 14–15, 17–18; Ex. 1002, ¶¶ 108, 109, 123, 124; Ex. 1004, Abstract, ¶¶ 98, 102, 106, 385–392, Fig. 3.

*b) server*

Independent claim 1 sets forth that the gratuity management system comprises “a server coupled to a computer network” and “a database, accessible by the server.” Ex. 1001, 22:38–44. The server is “coupled to a computer network and accessible by [the] plurality of clients.” *Id.* at 22:40–41. And the server is “configurable to independently execute gratuity distribution rules on a client-by-client basis.” *Id.* at 22:41–43. For the purposes of institution, Petitioner adequately establishes that these features of the claimed system would have been suggested to POSITA by the teachings of Marshall. *See* Pet. 14–17; Ex. 1004, Abstract, ¶¶ 32, 98, 102, 105, 106, 110, 130, 141, 385–392, Fig. 3, 27; Ex. 1002, ¶¶ 108, 109, 112–113, 115, 116, 117, 120, 121.

*c) client business systems*

Independent claim 1 sets forth that the client business systems are “in electronic communication with the server of the gratuity management system.” Ex. 1001, 22:45–47. Each client business system comprises “at least one point of sale server” and an interface component “installed on the respective client business system.” *Id.* at 22:48–51. For the purposes of institution, Petitioner adequately establishes that these features of the claimed system would have been suggested to POSITA by the teachings of Marshall. *See* Pet. 2, 14–18; Ex. 1004, Abstract, 32, 70, 98, 102, 105, 106, 110, 130, 141, 385–392, Figs. 3, 27; Ex. 1002, ¶¶ 108–128.

*d) interface component*

Independent claim 1 sets forth that the interface component is “configured to extract transaction information and employee information from the client business system and to initiate transfer of the extracted

information to the gratuity management system.” Ex. 1001, 22:51–57. The gratuity management system is “configured to receive the extracted transaction information and employee information from the plurality of client business systems and to store the received extracted information in the database.” *Id.* at 22:58–64. For the purposes of institution, Petitioner adequately establishes that these features of the claimed system would have been suggested to POSITA by the teachings of Marshall. *See* Pet 2, 19–22; Ex. 1004, ¶¶ 69, 108–110; Ex. 1002, ¶¶ 138–143.

*e) gratuity distribution rules and allocations*

Independent claim 1 sets forth that the gratuity management system is further configured to execute, independently for each client, “gratuity distribution rules for allocating gratuities among at least a portion of the employees,” to determine “a gratuity allocation based on at least the received extracted transaction information, the received extracted employee information, and the gratuity distribution rules,” and to return “the gratuity allocation” to the interface component of each respective client business system, “without requiring the client business systems to execute the gratuity distribution rules.” Ex. 1001, 22:65–23:8. For the purposes of institution, Petitioner adequately establishes that these features of the claimed system would have been suggested to POSITA by the teachings of Marshall. *See* Pet. 2, 15–16, 22–28; Ex. 1004, ¶¶ 32, 78, 80-83, 105, 136, 138, 139, 142, 224–226, Figs. 5A, 5B, 12, 27; Ex. 1002, ¶¶ 115, 116, 156, 157, 160–166.

*f) cloud computing system*

Independent claim 1 requires the gratuity management system to be “a cloud computing system remote from the plurality of client business

systems.” Ex. 1001, 22:58–60.<sup>9</sup> For the purposes of institution, Petitioner adequately establishes that these features of the claimed system would have been suggested to POSITA by the teachings of Marshall. *See* Pet. 21; Ex. 1004, ¶¶ 25, 110, 400; Ex. 1002, ¶¶ 145–150.

Patent Owner argues that “Marshall fails to disclose a cloud-based computing system remote from a plurality of client business systems” as recited in independent claim 1. Prelim. Resp. 22. Per Patent Owner, the cited-by-Petitioner paragraphs in Marshall (Ex. 1004) say “nothing about ‘cloud computing,’ only data transmission.” *Id.* at 22–23. And, per Patent Owner, the cited-by-Petitioner paragraphs from a declaration (Ex. 1002), do not provide “any additional evidence” beyond Marshall’s cited paragraphs. *Id.* at 22.

We disagree with Patent Owner’s characterization of the evidence presented by Petitioner. The cited paragraphs of Marshall talk not only about data transmission, but also data transmission to remote locations via the Internet. *See* Ex. 1004, ¶¶ 25, 110. Also, one of these paragraphs talks about data transmission to a remote location being performed “via uploading and downloading via HyperText Transfer Protocol (‘HTTP’), Extensible Markup Language (‘XML’), and/or HTML as is known in the art.” *Id.* ¶ 110. The

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<sup>9</sup> The ’050 Patent says that “[i]n some embodiments, [a] point of sale system 110 and/or [an] employee records system 112 may be implemented in cloud computing systems reducing the burden on businesses to host these systems using local computing resources.” Ex. 2002, 4:65–5:2. If so, “[t]he gratuity management system 100 may be similarly implemented in a cloud computing system that interfaced with cloud-based point of sale and/or employee record systems.” *Id.* at 5:2–5. The gratuity management system “is contemplated to operate in conjunction with both local and cloud-based point to sale and/or employee record systems.” *Id.* at 4:8–11.

cited paragraphs from the declaration provide additional evidence that these “communication protocols describe by Marshall (HTTP, XML, HTML) support a cloud-based infrastructure” and that “cloud computing solutions were well known and commonly used in the art by 2012.” Ex. 1002, ¶ 148. Thus, collectively, Petitioner’s evidence adequately establishes for the purposes of institution that Marshall indicates to POSITA that Marshall’s gratuity management system would be a cloud computing system remote from the plurality of client business systems.

g) *gratuity sync client application*

As indicated above, each client business system has an interface component installed thereon. *See* Ex. 1001, 22:51–57. Independent claim 1 requires this interface component to be “a gratuity sync client application installed on the respective client business system.” (*Id.* at 22:51–52.)<sup>10</sup> For the purposes of institution, Petitioner adequately establishes that these features of the claimed system would have been suggested to POSITA by the teachings of Marshall. *See* Pet. 2, 18–19, 27–28; Ex. 1004, ¶¶ 70, 80–83, 98, 106, 108, 109; Ex. 1002, ¶¶ 132–135, 164.

Patent Owner argues that Marshall “fails to disclose the recited ‘gratuity sync client application’ of claim 1, which is configured to extract information and initiate transfer of that information to the gratuity

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<sup>10</sup> The ’050 Patent says that “the gratuity management system includes an interface component 206 that integrate the business’s systems to extract the transaction information and employee information to be used in determining the gratuity allocations.” Ex. 1001, 7:50–53. In the drawings, “[t]he example of an interface component 206” is “labeled ‘Grat Sync Client Application’ and is indicated as being installed on [a client] server 200.” *Id.* at 7:53–56, *see also* Figs. 2A, 2B.



management system.” Prelim. Resp. 24. According to Patent Owner, the cited-by-Petitioner paragraphs in Marshall disclose “a manual process for the file transfer and manipulation involving no special data-management software or interfaces beyond basic file system architecture and data files.” *Id.* Thus, per Patent Owner, “[t]his is not the recited ‘gratuity sync client application.’” *Id.*

We disagree with Patent Owner’s characterization of the evidence presented by Petitioner. As pointed out by Petitioner, Marshall teaches that a client business’s “interface” systems can include computers that “are networked or otherwise linked together” and Marshall teaches that such client business systems can have “software” that “interfaces with GrataSoft for uploading employee and transaction information.” Pet. 18–19; *see also* Marshall ¶¶ 98, 102, 106, 108, 109. Petitioner also presents evidence that “a POSITA would have recognized that the interface system (i.e., a gratuity sync client application) is essential for controlling and facilitating the operation of the entire client business system.” Ex. 1002, ¶ 133. Thus, collectively, Petitioner’s evidence adequately establishes for the purposes of institution that Marshall indicates to POSITA that Marshall’s interface component could be a gratuity sync client application.

*h) Conclusion as to claim 1*

After considering Petitioner’s evidence and analysis, and taking into account Patent Owner’s arguments, based on the record before us at this stage of the proceeding, we determine that Petitioner has shown a reasonable likelihood that claim 1 is unpatentable over Marshall.<sup>11</sup>

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<sup>11</sup> Patent Owner contends that “[t]he Petition should be denied for offering only conclusory argument, and instead relying on the expert declaration to

*G. Other Claims and Other Grounds*

The Supreme Court has held that the Board, in a decision to institute under 35 U.S.C. § 314(b), may not institute review on less than all claims challenged in the petition. *SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1355–56 (2018). Moreover, in accordance with our rules, “[w]hen instituting *inter partes* review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim.” 37 C.F.R. § 42.108(a) (2020); *see also PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360 (Fed. Cir. 2018) (interpreting the statute to require “a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition”).

As discussed above, we determine the information presented shows a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of at least one of the challenged claims (i.e., independent claim 1 on Ground One). Accordingly, we institute an *inter partes* review of all challenged claims (i.e., claims 1–13), based on Grounds One–Four asserted in the Petition.

As discussed above, Patent Owner argues that Marshall fails to disclose “a cloud-based computing system remote from a plurality of client business systems” (Prelim. Resp. 22) and fails to disclose “the gratuity sync

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provide analysis found nowhere in the Petition itself.” Paper 6, 15. But the only specific “example” given in connection with this contention pertains to “the limitations of Claim 3.” *Id.* In any event, we were able to follow Petitioner’s citations to Marshall without undue effort in connection with independent claim 1. And the declaratory evidence relied upon in our analysis focussed on the inferences that would have been drawn by POSITA upon review of these citations.

client application” (*id.* at 24). Patent Owner also argues that “[t]he addition of Phillips does nothing to cure these issues,” and that “Webb cannot cure the defects of Marshall and Phillips.” *Id.* As Petitioner’s evidence adequately establishes for the purposes of institution that these features would have been obvious from Marshall’s teachings, Phillips and/or Webb need not be relied upon to disclose the allegedly missing features.

### III. CONCLUSION

After considering the arguments presented in the Petition, the Preliminary Response, and the evidence of record, we determine that Petitioner has demonstrated at least a reasonable likelihood of success in proving that at least one claim (i.e., independent claim 1) of the ‘050 Patent is unpatentable. Thus, we institute an *inter partes* review of all challenged claims (i.e., claims 1–13) on all grounds set forth in the Petition. Our determinations at this stage of the proceeding are based on the evidentiary record currently before us. This decision to institute trial is not a final decision as to patentability of any claim for which we have instituted an *inter partes* review. *See TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016) (noting that “there is a significant difference between a petitioner’s burden to establish a ‘reasonable likelihood of success’ at institution, and actually proving invalidity by a preponderance of the evidence at trial”). We will base any final decision on the full record developed during trial.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review is instituted for claims 1–13 of the ‘050 Patent on the unpatentability grounds asserted in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial, which commences on the entry date of this decision.

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