

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TOAST, INC.
Petitioner

v.

GRATUITY, LLC
Patent Owner

IPR2023-01408

U.S. Patent No. 9,741,050

Issue Date: August 22, 2017

Title: SYSTEM AND METHOD FOR MANAGING GRATUITIES

**PETITIONER'S REPLY TO
PATENT OWNER'S RESPONSE**

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Patent Trial and Appeal Board
United States Patent and Trademark Office
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LIST OF EXHIBITS

Exhibit No.	Description of Document
1001	U.S. Patent No. 9,741,050 (the "'050 patent")
1002	Declaration of Dr. Samuel H. Russ ("Decl.")
1003	Curriculum Vitae of Dr. Samuel H. Russ
1004	U.S. Patent Application Publication No. 2008/0065396 ("Marshall")
1005	U.S. Patent Application Publication No. 2014/0365322 ("Phillips")
1006	U.S. Patent No. 4,819,612 to Webb ("Webb")
1007	Plaintiff's Preliminary Infringement Contentions, <i>Gratuity Solutions, LLC v. Toast Inc.</i> , No. 1:22-cv-11539 (D. Mass.) ("Infringement Contentions")
1008	Prosecution History of the '050 patent ("prosecution history")
1009	eN-Touch 1000 datasheet
1010	Aaron Weiss. "Computing in the clouds," in netWorker, vol. 11, no. 4, pp. 16–25 (December 2007)
1011	R.L. Grossman, "The Case for Cloud Computing," in IT Professional, vol. 11, no. 2, pp. 23–27, March/April 2009
1012	Mahmood, Z., & Hill, R. (Eds.). (2011). Cloud computing for enterprise architectures (2011th ed.). Springer. pp. 3–4.

Exhibit No.	Description of Document
1013	Minneapolis-based TimeManagement teams with Agilysys, March 3, 2010.
1014	Christina Volpe, "POS Software 2011", Hospitality Technology Newsletter, Dec. 19, 2010. Accessed via https://hospitalitytech.com/pos-software-2011 on Aug. 17, 2023
1015	https://web.archive.org/web/20120506043919/http://www.agilysys.com/home/Hospitality/Solutions/infogenesis_pos.htm
1016	https://web.archive.org/web/20120506082635/http://www.agilysys.com/home/Hospitality/Solutions/SaaS.htm
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1020	Levine and Van Wijk, Counting on Computers, Chain Store Publishing Company, 1980
1021	Alan Liddle, "Service staffs steamed over proposed Calif. Tip-share law", Nation's Restaurant News, Vol. 38, No. 15, April 12, 2004
1022	Dina Berta, "Operators tip hat to practice of holding gratuities until payday", Nation's Restaurant News, Vol. 38, No. 16, April 19, 2004
1023	D. Brown, Restaurant Manager's Handbook, Atlantic Publishing Group, 3rd Edition, 2003, pp. C16-14 to C16-20.

Exhibit No.	Description of Document
1024	Amended Joint Case Management Statement, <i>Gratuity Solutions, LLC v. Toast Inc.</i> , No. 1:22-cv-11539, Dkt. No. 73 (D. Mass. Aug. 8, 2023)
1025	Electronic Order re Joint Motion to Modify the Schedule, <i>Gratuity Solutions, LLC v. Toast Inc.</i> , No. 1:22-cv-11539, Dkt. No. 74 (D. Mass. Aug. 23, 2023)
1026	Barry M. Leiner et al., Brief history of the internet, Internet Society, 1997
1027	https://home.cern/science/computing/birth-web/short-history-web
1028	https://web.archive.org/web/20120506082635/http://www.agilysys.com/home/Hospitality/Solutions/SaaS.htm
1029	https://web.archive.org/web/20120506043142/http://www.agilysys.com/home/Hospitality/Solutions/
1030	Electronic Notice of Reassignment, <i>Gratuity Solutions, LLC v. Toast, Inc.</i> , No. 1:22-cv-11539, Dkt. No. 90 (D. Mass. Jan. 16, 2024)
1031	https://www.mad.uscourts.gov/boston/kobick.htm
1032	Electronic Notice of Markman Hearing, <i>Gratuity Solutions, LLC v. Toast, Inc.</i> , No. 1:22-cv-11539, Dkt. No. 91 (D. Mass. Jan. 19, 2024)
1033	LegalMetric Custom Report, Time from Hearing to Markman Ruling, District of Massachusetts, 2010 to October 2023

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1034	Excerpts from Transcript of September 3, 2024 Deposition of Ian H.S. Cullimore, Ph.D. (“Cullimore Dep.”)
1035	Declaration of Samuel H. Russ Ph.D. in Support of Petitioner's Reply to Patent Owner's Response (“Reply Decl.”)
1036	https://aws.amazon.com/about-aws/
1037	https://techcommunity.microsoft.com/t5/educator-developer-blog/the-history-of-microsoft-azure/ba-p/3574204

I. INTRODUCTION

In the Petition, Petitioner explained in detail why—based on the disclosures of Marshall, Phillips, and Webb along with the knowledge of a POSITA—all of the Challenged Claims are invalid as obvious. In its decision instituting review, the Board determined that Petitioner adequately established for purposes of institution that the limitations of claim 1 “*would have been suggested to [a] POSITA* by the teachings of Marshall.” (Paper 11 (“Decision”), 21.¹)

In its Response, Patent Owner (“PO”) ignores that “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007). PO argues that the cited prior art references are purportedly directed to “client-side processing” of gratuities, rather than remote processing in the cloud. In making these arguments, however, PO rigidly applies selective disclosures from the prior art while ignoring others which do not support its position. Moreover, PO fails to take into account the knowledge and creativity of a POSITA and how such a person would interpret the prior art, which must be considered as part of the Board’s obviousness analysis. *C.R. Bard, Inc. v. Medline Indus., Inc.*, No. 2020-1900, 2021 WL 3574043, at *5 (Fed. Cir. Aug. 13, 2021) (vacating in part final written decision where “the Board’s obviousness analysis

¹ All emphases added unless otherwise noted.

rigidly focused on the disclosures of individual prior-art references without considering a skilled artisan's creativity and common sense") (cleaned up; citation omitted).

For example, PO argues that Marshall is limited to "client-side processing" based solely on Marshall's Figure 3 depicting a basic computer setup in a restaurant. (Paper 14 ("POR"), 22–26.) However, as discussed in further detail below, PO fails to address multiple other disclosures in Marshall (including an embodiment where Marshall's system may be used across multiple employer locations) and the fact that, with such disclosures, a POSITA would have had the knowledge and creativity to implement Marshall's system in the cloud.

When properly considering the full scope of the prior art disclosures and the knowledge of a POSITA, as detailed in the Petition and the Russ Declaration, all of the Challenged Claims are invalid as obvious and should be cancelled.

II. LEVEL OF ORDINARY SKILL IN THE ART

For purposes of institution, the Board applied the level of a POSITA as "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." (Decision, 18.) In its Preliminary Response, PO did not dispute Petitioner's proposed level of ordinary

skill. The Board noted that Petitioner's proposal is "consistent with the level of skill at the time of the claimed invention reflected by the '050 Patent and the cited prior art references." (*Id.*)

In the Response, PO argues "that the relevant technical field for the asserted patents covers computer hardware and software, and that a person of ordinary skill in the art ('POSITA') in this technical field on September 4, 2012, would have had a Bachelor of Science in computer science, computer engineering, electrical engineering, or similar major with at least two years of experience related to research, evaluation, design, development, testing, etc. of computer hardware and software." (POR, 11.) PO fails to explain the significance of any difference between its definition and the definition adopted by the Board for purposes of institution. Moreover, none of PO's arguments hinge on any difference between the two definitions; aside from the section setting forth its proposed level of skill, PO never again discusses the level of a POSITA. In any event, Dr. Russ's opinions applying the prior art are the same under either definition of a POSITA. (Ex. 1035 ("Reply Decl."), ¶11.)

III. CLAIM CONSTRUCTION

In the Institution Decision, the Board determined that "no express claim construction is necessary for any claim terms." (Decision, 19.) In its Response, PO

does not identify any claim terms that need to be construed. Petitioner maintains that no claim construction is necessary.

PO spends multiple pages of its “Claim Construction” section arguing that the Board supposedly erred in concluding that “[t]he prosecution history does not sufficiently show that the Examiner considered Marshall, Phi[l]lips, Web[b], or the combinations of these references asserted in the Petition, with respect to the claims that issued as the '050 Patent.” (Decision, 16; POR, 11–18.) These arguments, related to the Board's *Advanced Bionics* analysis, are irrelevant to the Board's substantive analysis of the prior art grounds set forth in the Petition. To the extent the Board addresses these arguments, its prior conclusion was correct, for the reasons set forth in the Institution Decision. (Decision, 14–17.)

IV. ARGUMENT

A. Ground 1 – Marshall renders claims 1–3, 8, and 10 obvious.

Petitioner explained in detail how Marshall renders obvious claims 1–3, 8, and 10 of the '050 patent, including, in particular, why it would have been obvious to a POSITA to implement Marshall in the cloud, a well-known architecture by September 2012. (Paper 1 (“Pet.”), 14–36.) Rather than address the arguments and citations to Marshall set forth in the Petition, PO focuses solely on Marshall's Figure 3 and argues that, based on just that single embodiment, a POSITA would not have known how to implement Marshall's system in the cloud. (POR, 19–26.) PO fails

to conduct a proper obviousness analysis. When considering Marshall as a whole and with the knowledge of a POSITA, the claims of the '050 patent are invalid as obvious.

1. *gratuity management system*

Marshall's system 300 is a remote "gratuity management system" comprising a "server" in the form of processing unit 302. (Pet., 15; Ex. 1006 ("Marshall"), ¶98 ("Processing unit 302 may be a standard PC or **server** as is known in the art.")) The processing unit 302 executes Marshall's Gratuity Reporting and Tip Allocation Software ("GrataSoft"), which can be configured to run different rules for distributing tips. (Pet., 16; Marshall, ¶¶126–27.) Marshall's system may be implemented as "a **Web server** or similar apparatus that interacts with one or more users via an Internet connection" (Marshall, ¶102.) Additionally, Marshall's server can communicate using protocols such as HTTP, XML, and HTML, all of which were known to support cloud-based infrastructures before September 2012. (Pet., 21; Marshall, ¶110; Ex. 1002 ("Decl."), ¶¶147–48; Ex. 1034 ("Cullimore Dep."), 17:21–18:17.)

Furthermore, Marshall discloses that its GrataSoft system may be used in a "multi-employer" setting. (Marshall, Fig. 27, ¶¶385–92.) As Dr. Russ explained, one purpose of Marshall's disclosure of a Web-based implementation is obvious in this "multi-employer" context—to allow users from multiple restaurant locations to

access the system. (Decl., ¶113.) And, with multiple employers, it would have been obvious to a POSITA to implement the server of Marshall's gratuity management system remotely in the cloud, rather than having a separate server at each client location. Indeed, using a cloud-based implementation would have had known benefits, including, for example, allowing for the consistent administering of gratuities across all restaurants in a chain and simplifying the updating and maintenance of software. (*Id.*, ¶135; Cullimore Dep., 30:15–31:6, 33:1–34:16, 60:21–61:13.)

PO and its expert, Dr. Cullimore, fail to address Marshall's disclosures above—including the “multi-employer” embodiment—and the teachings that they provide to a POSITA. (*See generally* POR; Cullimore Decl.; Cullimore Dep., 52:6–17.) Instead, PO's argument that Marshall discloses only “client-side” tip calculations focuses solely on the setup disclosed in Marshall's Figure 3. (*E.g.*, POR, 5, 7.) But Figure 3 is “an exemplary embodiment of a *simplistic* system for implementing the systems and methods of the present invention.” (Marshall, ¶97.) According to Marshall, “[i]t will be appreciated by those skilled in the art that changes could be made to the embodiments described ... without departing from the broad inventive concept thereof,” such that the invention “is intended to cover modifications within the spirit and scope of the present invention as defined by the appended claims.” (*Id.*, ¶401.)

Thus, while Figure 3 of Marshall can be interpreted as depicting one possible “client-side” setup, it still would have been obvious to a POSITA—reviewing the entirety of Marshall—to implement the invention in the cloud. This is particularly true given that Marshall itself discusses multiple embodiments, including the “multi-employer” embodiment, that a POSITA would understand to implicate cloud-based technology.² *Boston Scientific Scimed, Inc. v. Cordis Corp.*, 554 F.3d 982, 991 (Fed. Cir. 2009) (“Combining two embodiments disclosed adjacent to each other in a prior art patent does not require a leap of inventiveness.”).

PO argues that it would not have been obvious to modify Marshall, but it again selectively ignores Marshall's disclosures to do so. (POR, 26–29 (relying on Marshall's alleged “exclusive disclosure of client-side processing of tips”).) PO also cites to the Cullimore Declaration to argue that “problems associated with scale-up and transitioning to a cloud-based system, and associated cost and security issues, would not have been a simple modification for a POSITA.” (POR, 27 (citing Ex.

² As Dr. Russ explained previously, while Marshall discusses various “embodiments,” “a POSITA would have understood from Marshall's entire disclosure that all the recited embodiments merely describe different features or facets of Marshall's GrataSoft system and that these embodiments when put together provide a detailed overview of Marshall's system.” (Decl., ¶94.)

2006 (“Cullimore Decl.”), ¶¶87–91).) Initially, Dr. Cullimore cites no evidence to support his opinions. Moreover, Dr. Cullimore completely ignores the fact that cloud technology and all of its benefits were well-known by September 2012, as detailed by the literature cited in the Russ Declaration. (Decl., ¶¶48–56; Reply Decl., ¶¶13–15.) For this reason, as Dr. Russ explains, the supposed bases that Dr. Cullimore gives for a POSITA not wanting to implement a cloud-based POS system make little sense. (Reply Decl., ¶¶18–27.) For example, Dr. Cullimore states that a POSITA would be “anxious” that implementing a cloud-based architecture “might backfire and be detrimental to the company.” (Cullimore Decl., ¶90(5).) Setting aside the fact that this opinion says nothing about the technical capabilities of a POSITA, many companies had already begun using cloud technology, even by September 2012. (Reply Decl., ¶¶26–27.)

Accordingly, Marshall discloses or renders obvious a remote “gratuity management system.”

2. *server*

Marshall's gratuity management system (GrataSoft) comprises a server 302 that, for the reasons discussed above, would have been obvious to implement in the cloud. Marshall's server 302 can communicate with a variety of “interfaced systems” existing at a client business system, including, for example, “point-of-sale (‘POS’) systems, electronic cash register systems, timeclock programs, time and

attendance systems, payroll processing systems, and other similar systems as are known in the art.” (Marshall, ¶69.) One example of an interface system discussed in Marshall is the Aloha POS. (*Id.*, ¶108.) While “[i]n a typical embodiment, the GrataSoft software will be co-located on such Aloha server, or processing unit[,] such embodiments are not required.” (*Id.*, ¶110.) Instead, the “Aloha [POS] file folder may be local or *remote* to the server....” (*Id.*) Marshall discloses that the Aloha POS extracts “payment” and “sales” information (i.e., “transaction information”) as well as “employee information such as name, address, social security number, etc.” (i.e., “employee information”) and transfers such information over a computer network to be stored and used by the server 302 of the remote gratuity management system. (Pet., 19–20; Marshall, ¶¶108, 110.)

PO argues:

Marshall nowhere teaches or suggests a cloud-based server as part of any remote gratuity management system, that is separate and distinct from any client point-of-sale (POS) server, and that determines on a client-by-client basis, gratuity allocations using client-specific gratuity distribution rules (stored in the database of the cloud-based gratuity distribution system) and applying them to client-specific employee and transaction information extracted *from* the individual clients and provided *to* the cloud based system.

(POR, 31 (emphasis in original).)

As demonstrated above, Marshall renders obvious a cloud-based, remote gratuity management system (running GrataSoft) that is separate and distinct from the Aloha POS system on the client side. Marshall also suggests to a POSITA that the GrataSoft system can be implemented in the cloud to determine gratuity allocations based on “client-specific employee and transaction information extracted *from* the individual clients”—i.e., information received from the Aloha POS at the client business system—“and provided *to* the cloud based system”—i.e., the server 302 running GrataSoft. As elsewhere, PO makes this argument by ignoring the disclosures of Marshall cited in the Petition. Indeed, PO and its expert never discuss the Aloha POS or Marshall's disclosure that the Aloha POS can be a remote system. (*See generally* POR.)

3. *client business systems*

With respect to the “client business systems,” PO's argument is the same as for the “server”—according to PO, Marshall “does not teach or suggest adding a remote cloud-based gratuity management system or associated server that is separate and distinct from any client business system's point-of-sale (POS) server.” (POR, 33.) But, as already demonstrated above, Marshall in fact discloses or renders obvious a cloud-based gratuity management system (the processing unit 302 running the GrataSoft software) that is separate and remote from POS servers of client business systems (the remote Aloha POS server).

4. *interface component / gratuity sync client application*

As discussed above, Marshall discloses that components of “client business systems,” including, for example, the Aloha POS, can be located remotely from the processing unit 302 (“server”) running the GrataSoft program (“gratuity management system”). The separate Aloha POS collects and saves (“extracts”) local transaction information and employee information from the client business system and transmits it over a computer network where it is “received” and “stored” by the remote server 302. (Pet., 19–22.) To perform these operations, the client business system running the Aloha POS requires a software application to be installed; this installed software is an “interface component” or “gratuity sync client application” as claimed in the ’050 patent. (Pet., 18–19, 31–33; Decl., ¶¶132–33.)

Once the GrataSoft system calculates gratuity allocations based on the transaction information and employee information received from the client business system, it sends the allocated gratuities and other information back to the client business system, so that the client (e.g., restaurant) may use the information, including, for example, to generate summary reports. (Pet., 26–28; Marshall, Fig. 12, ¶¶80–83, 224–26.) Based on such disclosures, Marshall discloses or renders obvious the “interface component” or “gratuity sync client application.”

PO contends that Marshall “cannot teach the claimed ‘interface component’ that is specifically claimed as ‘configured to extract at least one of transaction

information and employee information from the client business system' and to initiate transfer of that information to the remote gratuity management system.” (POR, 36.) This assertion is false, as demonstrated by the disclosures above. Notably, despite Petitioner identifying the Aloha POS software as the claimed “interface component” or “gratuity sync client application,” PO fails to address the Aloha POS anywhere in its Response. Because PO, as elsewhere, has completely ignored relevant disclosures from Marshall relied on by Petitioner, the Board should reject PO's argument.

5. *gratuity distribution rules and allocations*

Marshall renders obvious a gratuity management system configured 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.

(Pet., 22–28.) In particular, Marshall's GrataSoft system (“gratuity management system”) running on the processing unit 302 (“server”) determines gratuity allocations on a client-by-client basis using the employee and transaction information received from the remote Aloha POS system (“client business system”). (*Id.*, 15–16, 22–26.) The GrataSoft system then returns the determined gratuity

allocations to the client business systems to be used for, for example, generating reports and distributing allocations. (*Id.*, 26–28.)

PO argues that Marshall does not disclose or render obvious the final limitation of claim 1 based again on the incorrect assertion that “Marshall is clear that the calculation of tips occurs locally at each client as shown in Fig. 3.” (POR, 38.) For the same reasons discussed above, Marshall’s disclosures are not so limited, and the Board should reject PO’s argument.

6. *cloud computing system*

As cloud computing was well known by September 2012, it would have been obvious for a POSITA to implement Marshall’s GrataSoft system in the cloud. (Pet., 21; Decl., ¶¶146–50.) PO’s expert, Dr. Cullimore, acknowledges that using a “[c]loud-based server system” was one of several options known to a POSITA. (Cullimore Decl., ¶89.) Dr. Cullimore and Dr. Russ both agree that the communication protocols discussed in Marshall—HTTP, XML, HTML—were known to support cloud-based infrastructures as of September 2012. (Marshall, ¶110; Decl., ¶¶147–48; Cullimore Dep., 17:21–18:17.) Nor does PO dispute that cloud-based systems were well-known by September 2012. As elsewhere, PO’s only argument is that Marshall is directed to a “client-side” system so it would not have been obvious to implement Marshall’s system in the cloud. (POR, 40; *see also* Decision, 23–24 (disagreeing “with Patent Owner’s characterization of the evidence

presented by the Petitioner” for “cloud computing system”).) PO is wrong for the same reasons discussed above. (*See* §IV.A.1, *supra*.)

B. Ground 2 – Marshall and Webb render claims 4–7, 9, 11–13 obvious.

PO's argument with respect to Ground 2 is that “Webb does not cure the deficiencies set forth above with respect to Marshall” (POR, 41.) For the reasons set forth above, PO's arguments regarding Marshall are incorrect and should be rejected by the Board. Webb therefore need not cure any deficiencies in Marshall with respect to claim 1, nor did Petitioner rely on Webb for such a purpose in the Petition.

Instead, Petitioner asserted that (1) a POSITA would have been motivated to combine Marshall and Webb (Pet., 36–38) and (2) Marshall, alone or in combination with Webb, renders obvious the additional limitations of dependent claims 4–7, 9, and 11–13 (*id.*, 38–45). With respect to motivation to combine, PO does not address the arguments set forth in the Petition and supported by the Russ Declaration or explain why they are incorrect. PO instead provides a conclusory statement that “one of ordinary skill in the art ... would have had no motivation to modify either

Marshall or Webb to obtain the invention disclosed and claimed in the '050 patent.” (POR, 42.) The Board need not accept such an unsubstantiated argument.³

As for the additional limitations of claims 4–7, 9, and 11–13, PO failed to separately challenge the evidence set forth in the Petition and, thus, has waived its ability to do so in these proceedings. (See Paper 12, 9 (“Patent Owner is cautioned that any arguments not raised in the response may be deemed waived.”).)

C. Ground 3 – Phillips and Marshall render claims 1–3, 8, and 10 obvious.

Petitioner explained how Phillips and Marshall renders obvious claims 1–3, 8, and 10. (Pet., 45–59.) With respect to claim 1 in particular, Petitioner established

³ Though not referenced in the Response, Dr. Cullimore states in his Declaration, “I disagree it would have been obvious to combine with Webb as Webb’s time-clock technology is too dissimilar with that of Marshall.” (Cullimore Decl., ¶80.) Dr. Cullimore, however, fails to provide any explanation to support this statement, and the Board should not credit this conclusory statement. *TQ Delta, LLC v. Cisco Sys., Inc.*, 942 F.3d 1352, 1357 (Fed. Cir. 2019) (reversing obviousness determinations where “the Board’s factfinding is based on conclusory [expert] testimony and is therefore unsupported by substantial evidence”). In contrast, Dr. Russ provided over five pages of discussion detailing why a POSITA would have been motivated to combine the teachings of Marshall and Webb. (Decl., ¶¶207–13.)

that Phillips discloses each and every limitation of claim 1, except that Phillips does not expressly disclose a gratuity management system that is a “cloud computing system.” (*Id.*, 46–55.) However, it would have been obvious to implement Phillips as a “cloud computing system” because cloud-based systems were well known before September 2012; indeed, Marshall disclosed or rendered obvious such a system years before September 2012. (*Id.*, 53; Decl., ¶¶293–94.)

In its Response, PO fails to address any specific limitations from the Challenged Claims that are not rendered obvious by Phillips and Marshall. Instead, PO argues that “Phillips does not cure the deficiencies” of Marshall because:

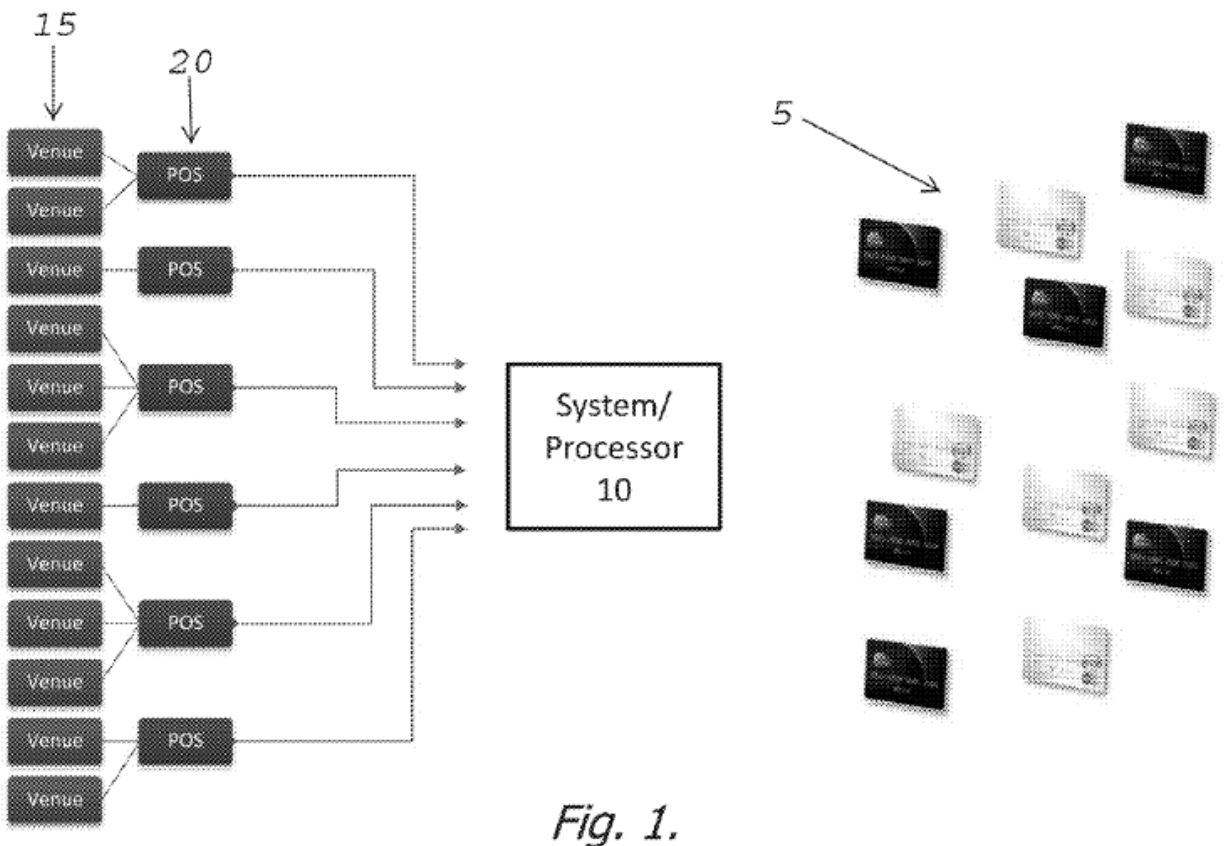
Phillips is directed to client-side tip calculations at the client's point-of-sale system, and does not teach or suggest a number of the claimed features of the gratuity management system claimed in the '050 patent including a remote, cloud-based gratuity management system having a server that is separate and distinct from any client point-of-sale (POS) server.

(POR, 43.)

As a first matter, Petitioner does not rely on Phillips to “cure” any alleged deficiencies in Marshall. As noted above, Phillips itself discloses almost all of the limitations of claim 1; Marshall simply confirms Dr. Russ' opinion that it would have been obvious to implement Phillips' invention in the cloud. Moreover, PO is wrong that Phillips “is directed to client-side tip calculations” and does not disclose

“a remote, cloud-based gratuity management system having a server that is separate and distinct from any client point-of-sale (POS) server”—multiple disclosures in Phillips, cited in the Petition, demonstrate that the server of Phillips’ gratuity management system exists remotely from any client-side POS systems.

For example, as shown in Figures 1 (copied below), 2a, and 2b, Phillips discloses a central processing system 10 (a “server”) that is connected to multiple venues (restaurants) and their respective POS systems 20:



(Ex. 1005 (“Phillips”), Fig. 1.) As depicted, Phillips’ server 10 is remote from the venues (the “client business systems”) and coupled to the venues through a computer network. Further, Phillips discloses that each POS system 20 connected to the

venues 15 uploads tip information to the remote server 10: “As illustrated in FIG. 2a, at the end of the work shift (or at any other convenient or useful interval), the tip totals 25 or other information/data are **uploaded from the POS system(s) 20 to a central processing system 10.**” (*Id.*, ¶34.) Thus, contrary to PO’s assertion, Phillips’ server is not located on the client side and, instead, is remote. (Decl., ¶268.)

Accordingly, the Board should reject PO’s argument for Ground 3 and find that claims 1–3, 8, and 10 are obvious in view of Phillips and Marshall.

D. Ground 4 – Phillips, Marshall, and Webb render claims 4–7, 9, and 11–13 obvious.

PO’s only argument for Ground 4 is that “neither Phillips nor Webb cures any of the deficiencies set forth above with respect to Marshall, whether considered individually or combined.” (POR, 44.) Again, Petitioner does not rely on Phillips or Webb to cure any alleged deficiencies in Marshall; as already discussed above, Marshall simply confirms that it would have been obvious to a POSITA to implement Phillips’ invention in the cloud.

For Ground 4, PO does not otherwise dispute that (1) a POSITA would have been motivated to combine Phillips, Marshall, and Webb (Pet., 60–61) and (2) Phillips in view of Marshall and Webb renders obvious the additional limitations of dependent claims 4–7, 9, and 11–13 (*id.*, 61–66). PO has thus waived the ability to challenge these assertions. These dependent claims are therefore obvious in view of Phillips, Marshall, and Webb.

V. CONCLUSION

For the reasons stated in Petitioner's Petition and Reply, the Board should find the Challenged Claims of the '050 patent are unpatentable and should be cancelled.

Date: September 12, 2024

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CERTIFICATE OF COMPLIANCE

Petitioner certifies that the word count in this Reply is 3,942 words, as counted by the word-processing program (Microsoft Word for Office 365) used to generate this Reply, where such word count excludes the table of contents, table of authorities, listing of challenged claims, certificate of service, appendix of exhibits, and this certificate of word count. This Reply is in compliance with the 5,600-word limit set in 37 C.F.R. § 42.24(c)(1).

Dated: September 12, 2024

By: /Sanjeet Dutta/
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CERTIFICATE OF SERVICE

The undersigned certifies that a true and correct copy of the foregoing
Petitioner's Reply to Patent Owner's Response has been served on the Patent Owner
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