

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ASKELADDEN, L.L.C.,

Petitioner,

v.

OHVA, INC.,

Patent Owner.

Case No. IPR2023-00921

U.S. Patent No. 9,679,286

**PATENT OWNER'S PRELIMINARY RESPONSE
PURSUANT TO 37 C.F.R. § 42.107(a)**

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Exhibit	Description
2001	Declaration of Donald R. Boys
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I. INTRODUCTION

U.S. Patent No. 9,679,286 (the “’286 Patent”) claims an improved apparatus and method for enabling secure network-based transactions. *See, e.g.*, EX1001, Abstract. These include “ways of using hardware and/or software to provide secure authentication over a network for users and user groups.” *Id.*, 3:55-57. More particularly, the ’286 Patent discloses using a “modulated sound consisting at least in part of an identification number and a session key” to authenticate transactions. *Id.*, 3:59-61. The apparatus and method of authentication claimed by the ’286 Patent may be applied to “a transaction portal authenticating transactions for a group of web merchants or banks” or to “any server adapted to handle secure transactions for individuals.” *Id.*, 5:35-40.

Thus, the Challenged Claims 1-4 recite specific improvements for authenticating transactions, including, in independent Claims 1 and 3:

- ***[1.1.3] the card reader providing the transaction data accepted from the output interface of the transaction card to the output pin, and hence to the microphone port, as an analog variable voltage audio signal;***
- ***[1.3.1] wherein the coded instructions, when executed on a processor in the smart telephone, convert the analog variable voltage audio signal received at the microphone port to the transaction data as digital data***
- ***[3.1.1] accepting transaction data from a transaction card at an input interface of a card reader having an output pin as a part of the card reader,***
- ***[3.3] converting the analog variable voltage audio signal received at the microphone port to the transaction data as digital data;***

The Challenged Claims 1-4 trace their priority to U.S. application Ser. No. 14/524,842, filed Oct. 27, 2014 (the “’842 Application”), which was a continuation of U.S. application Ser. No. 11/533,030, filed Sep. 19, 2006 (the “’030 Application”), which in turn claims priority to a U.S. provisional patent application Ser. No. 60/719,273, filed on Sep. 20, 2005 (the “’273 Application”).

Petitioner, realizing that its references date from the 2013-2014 timeframe, contests Patent Owner’s claim to priority and argues that Claims 1-4 are not entitled to an early priority date because, according to Petitioner, they are not adequately supported by the written description of earlier applications. Rather, Petitioner asserts, Claims 1-4 are only entitled to the March 3, 2015 priority date of the application that led to the ’286 Patent, Application No. 14/636,674 (“the ’674 Application”). Petitioner asserts that certain revisions to the “Brief Summary of the Invention” section of the specification made during prosecution of the ’674 Application were “new matter” entitled to the March 3, 2015 priority date and that these are the only portions of the specification that support Claims 1-4. Pet. 14-15. Petitioner also asserts that the Examiner raised this issue during prosecution and that the Patent Owner failed to contest it.

As an initial matter, contrary to Petitioner’s representations, Patent Owner *did* contest this issue during prosecution, in a Response filed March 29, 2017. This document appears to be missing in the file history of the ’286 Patent maintained by

the PTO. However, as Petitioner admits, on April 19, 2017, “a Notice of Allowance was issued, indicating it was in response to a communication from March 29, 2017.” Pet., 10 (citing EX1002, 32). The attorney responsible for prosecuting the ’286 Patent retained a copy of the March 29, 2017 Response, which is submitted herewith as EX2002; *see also* EX2001 (Declaration of Donald R. Boys). In that Response, “Applicant formally object[ed] to the Examiner's assertion of new matter at this late phase of prosecution.” EX2002. Patent Owner carefully explained in the Response that the Brief Summary of the Invention” section was *not* new matter, and that the claims were well-supported throughout the specification. EX2002 at 7-11. Thereafter, the Examiner issued a Notice of Allowance and—notably—no longer asserted that the ’286 Patent was only entitled to the March 3, 2015 priority date or that it was a “continuation in part.” Rather, the Examiner issued the ’286 Patent which on its face states that it is a “continuation” of the ’842 Application, which was a continuation of the ’030 Application filed on Sep. 19, 2006. At a minimum, Claims 1-4 entitled to the Sep. 19, 2006 of the ’030 Application.

In light of this key aspect of the prosecution history, Petitioner’s spurious attempt to deprive Claims 1-4 of the early priority date to which they are rightfully entitled is without merit. Indeed, Petitioner’s strained argument against an early priority date for Claims 1-4 largely depends on Petitioner’s *in haec verba* approach to the written description. Thus, Petitioner focuses on particular words, feigns

difficulty in finding them in the specification of earlier applications, and then simply concludes that the claims lack written description support.

In contrast with Petitioner’s approach, however, it is well-established that “a prior application need not contain precisely the same words as are found in the asserted claims.” *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1306 (Fed. Cir. 2008). Rather, the “hallmark of written description is disclosure,” *Novartis Pharms. Corp. v. Accord Healthcare, Inc.*, 38 F.4th 1013, 1017 (Fed. Cir. 2022), and whether “one skilled in the art, reading the original disclosure, must immediately discern the limitation at issue in the claims.” *Purdue Pharma L.P. v. Faulding Inc.*, 230 F.3d 1320, 1323 (Fed. Cir. 2000). Even “missing descriptive matter” may be adequately disclosed for written description purposes if it is “necessarily” “present in...specification such that one skilled in the art would recognize such a disclosure.” *Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 1159 (Fed. Cir. 1998).

As demonstrated *infra*, Petitioner’s hunt for particular words and attempt to suggest inadequacies in the written description of the specification of the ’842 Application and ’030 Application is belied by the *substance* of the disclosure therein. Indeed, once the substance of that disclosure is understood from the perspective of the skilled artisan, it is clear that Claims 1-4 are entitled to, at the very least, the Sep. 19, 2006 priority date of the ’030 Application. Based on that determination alone, the Board may deny the Petition, since all of Petitioner’s references post-date this

priority date, and do not qualify as prior art under 35 U.S.C. § 102.

Even if Petitioner's references *were* prior art, they cannot render obvious the challenged Claims 1-4, as they fail to teach at least the following limitations of independent Claims 1 and 3:

- ***[1.3.1] wherein the coded instructions, when executed on a processor in the smart telephone, convert the analog variable voltage audio signal received at the microphone port to the transaction data as digital data***
- ***[3.3] converting the analog variable voltage audio signal received at the microphone port to the transaction data as digital data***

In particular, all of Petitioner's proposed grounds rely solely on "Cho" reference (U.S. Patent 9,330,385) as rendering the foregoing limitations obvious, yet Cho completely fails to disclose "transaction data," as taught in the '286 Patent. Petitioner can nowhere point to "transaction data" in Cho, referring vaguely only to "account information" in Cho. However, in the '286 Patent has a more robust disclosure of "transaction data." There, "transaction data (b1-Bn)" is involved in the generation and matching of hash codes, such that the "server hash operation occurs after the user has entered his or her PIN code and the instant transaction data for that session," and "[o]therwise, the server would not have any knowledge of Bi-Bn and could not match the client hash." EX1001, 11:38-50. Cho does not disclose "transaction data" as taught in the '286 Patent, much less in the context of the broader claim limitations [1.3.1] and [3.3].

Finally, the Petition should be denied for Petitioner's failure to identify all real

parties in interest, as required by 35 U.S.C. § 312(a)(2). Although Petitioner claims that only it—Askeladden, L.L.C.—is the real party in interest in this proceeding, in fact Petitioner is an arm of the financial-services industry through its sole member, The Clearing House Payments Company, L.L.C. (“TCH”). TCH is a “banking association and payments company that is owned by the largest commercial banks.”¹ TCH owns the Petitioner, is its sole member, and Petitioner is a “product of thought leadership provided by” TCH, which has a “161-year tradition of furthering the interests of the commercial banking industry in the United States[.]”² The practical reality is that TCH’s member banks may potentially infringe the ’286 Patent, and that they—along with TCH itself—are real parties in interest just as much as Petitioner is. Members of similar entities as Petitioner have been held to be real parties in interest. *See, e.g., Unified Patents, LLC v. MemoryWeb, LLC*, IPR2021-01413, Paper 56 (P.T.A.B. Mar. 8 2023), *vacated on other grounds by Unified Patents, LLC v. MemoryWeb, LLC*, IPR2021-01413, Paper 76 (P.T.A.B. May 22, 2023).

Indeed, in IPR proceedings filed by Petitioner, the Board has repeatedly found TCH to be a real party in interest due to TCH’s ownership, control, and funding of Petitioner. *See, e.g., Askeladden LLC v. McGhie*, IPR2015-00122, Paper 30

¹ <https://www.theclearinghouse.org/about/history>; see also <https://www.theclearinghouse.org/about/owner-banks> (listing 24 banks)

² <https://www.patentqualityinitiative.com/about-pqi/team>

(P.T.A.B. Mar. 6, 2015) (finding TCH to be an undisclosed real party in interest in six Inter Partes Review proceedings); *Askeladden LLC v. Verify Smart Corp.*, IPR2017-00726, Paper 41 (P.T.A.B. Dec. 26, 2017) (finding TCH to be an undisclosed real party in interest). In response to these prior decisions by the Board, TCH appears to be continuously in the process of tweaking its LLC agreement in an attempt to put additional distance between it and Petitioner. However, Patent Owner maintains that the LLC agreement is not dispositive of the actual relationship between Petitioner, TCH, and TCH's member banks, and will seek discovery regarding these relationships as appropriate. No amount of draftsmanship as to the LLC agreement can ignore the reality that Petitioner is controlled and funded by TCH, such that TCH is a real party in interest.

Thus, as argued below, Petitioner has once again willfully failed to identify TCH as a real party in interest, and the Petition should be denied on that basis.

In sum, Petitioner simply has not met its burden to show a reasonable likelihood that any challenged claim of the '286 Patent is unpatentable.

II. LEGAL PRINCIPLES

“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016).

This burden never shifts to the Patent Owner. *Dynamic Drinkware, LLC v.*

Nat'l Graphics, Inc., 800 F.3d 1375, 1378 (Fed. Cir. 2015); *Impact Selector Int'l, LLC v. Petromac IP Ltd.*, IPR2019-01660, Paper 12, 6 (P.T.A.B. Apr. 17, 2020) (“It is Petitioner’s burden to prove unpatentability of the challenged claims, and the burden of persuasion never shifts to Patent Owner.”). This is especially true when the Petition raises only obviousness grounds:

Where, as here, the only question presented is whether due consideration of the four *Graham* factors renders a claim or claims obvious, no burden shifts from the patent challenger to the patentee. This is especially true where the only issues to be considered are what the prior art discloses, whether there would have been a motivation to combine the prior art, and whether that combination would render the patented claims obvious.

In re Magnum Oil Tools Int'l, Ltd., 829 F.3d 1364, 1376 (Fed. Cir. 2016).

The petition must “identif[y], in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim.” 35 U.S.C. § 312(a)(3). In addition, “the information presented in the petition” “[must] show[] 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); *Magnum Oil*, 829 F.3d at 1380 (holding that the Board cannot “raise, address, and decide unpatentability theories never presented by the petitioner”). “[T]he petitioner shall have the burden of proving a proposition of unpatentability by a preponderance of

the evidence.” 35 U.S.C. § 316(e).

In evaluating whether a patent satisfies the written description requirement for purposes of claiming priority, the disclosure must reasonably convey to skilled artisans that the inventor possessed the claimed invention as of the filing date. *See Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). The written description “test requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art.” *Id.* “One does that by such descriptive means as words, structures, figures, diagrams, formulas, etc., that fully set forth the claimed invention.” *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997). “The invention is, for purposes of the ‘written description’ inquiry, whatever is now claimed.” *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563–64 (Fed. Cir. 1991). “In order to satisfy the written description requirement, the disclosure as originally filed does not have to provide *in haec verba* support for the claimed subject matter at issue.” *Purdue Pharma L.P. v. Faulding Inc.*, 230 F.3d 1320, 1323 (Fed. Cir. 2000); *see also PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1306–07 (Fed. Cir. 2008) (explaining that § 112, ¶ 1 “requires that the written description actually or inherently disclose the claim element”).

The petitioner also has the initial burden of production to show that an asserted reference qualifies as prior art under 35 U.S.C. § 102. *Dynamic Drinkware*, 800 F.3d

at 1378–79. Once the petitioner has met that initial burden, the burden of production shifts to the patent owner to argue or produce evidence that either the asserted reference does not render the challenged claims unpatentable, or the reference is not prior art. *Id.* at 1379–80 (citing *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1327 (Fed. Cir. 2008)). Once the patent owner has met that burden of production in demonstrating, for example, entitlement of the challenged claims to a filing date that antedates the asserted reference, the burden of going forward again shifts to the petitioner to persuade the Board that the challenged claims are not entitled to the benefit of the earlier filing date. *See Tech Licensing Corp.* at 1328 (describing burdens in the context of an invalidity challenge in district court); *Guest Tek Interactive Ent. Ltd. v. Nomadix, Inc.*, No. IPR2019-01191, 2019 WL 7212601, at *6 (P.T.A.B. Dec. 27, 2019).

III. ARGUMENT

The Petition raises Grounds 1-4 alleging obviousness of claims 1-4 of the '286 Patent. All of Petitioner's Grounds rely on Cho, and all of Petitioner's reference (including Cho) date from the 2013-2014 timeframe.

As argued below, since the Challenged Claims 1-4 are entitled to at least the Sep. 19, 2006 priority date of the '030 Application, none of Petitioner's references qualifies as prior art and the Petition should be denied. The Board need not even determine whether the claims are entitled to the even earlier priority date of the

provisional application, since the Sep. 19, 2006 priority date of the '030 Application is sufficient to antedate all of Petitioner's references.

Moreover, since Cho fails to teach or suggest "transaction data" as claimed in claim limitations [1.3.1] and [3.3], and Petitioner relies solely on Cho for those limitations, Petitioner's Grounds 1 and 3 must fail (as must Grounds 2 and 4 which challenge dependent claims 2 and 4, respectively).

A. POSITA

Patent Owner does not materially dispute Petitioner's definition of a POSITA. Pet., 7.

B. Claim Construction

The Board can deny the Petition without engaging in claim construction because the Petition is deficient under any construction. *See Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

C. Petitioner's References Are Not Prior Art Because Claims 1-4 of the '286 Patent Are Fully Supported by the Written Description of the '030 Application and Therefore Entitled to a Priority Date of At Least September 19, 2006.

Petitioner has submitted the following four references in support of its grounds of unpatentability, all from 2013-2014 timeframe:

1. U.S. Patent 9,330,385 ("Cho") (EX1005); filed August 29, 2013; issued May 3, 2016.

2. U.S. Patent Publication 2013/0185208 (“Aaron”) (EX1006);
published July 18, 2013.

3. U.S. Patent Publication 2013/0124606 (“Carpenter”) (EX1008); published May 16, 2013.

4. U.S. Patent Publication 2014/0008432 to de Geer et al. (“de Geer”) (EX1007); published January 9, 2014.

On its face, the ’286 Patent claims priority to a series of applications pre-dating Petitioner’s references by nearly a decade, namely to U.S. application Ser. No. 14/524,842 (“the ’842 Application”), filed Oct. 27, 2014, which was a continuation of U.S. application Ser. No. 11/533,030 (“the ’030 Application”), filed Sep. 19, 2006, which claims priority to a U.S. provisional patent application Ser. No. 60/719,273 (“the ’273 Application”) filed on Sep. 20, 2005.

Given that the ’286 Patent claims priority to Sep. 20, 2005 on its face, whereas Petitioner’s references all date from 2013-2014, Petitioner devotes a great deal of its Petition to arguing that the challenged claims of the ’286 Patent lack written description support in any of the earlier-filed applications and are not entitled to their early priority dates. According to Petitioner, the ’286 Patent is entitled only to priority as of the March 3, 2015 filing date the application that led to the ’286 Patent—Application No. 14/636,674 (“the ’674 Application”)

As such, Petitioner's entire petition stands or falls with its argument for lack of written description and against Patent Owner's claim to priority.

Petitioner does not contest that "the '286 Patent contains the same specification as the '842 Application (filed [in] 2014) and '030 Application (filed in 2006), except for the replaced 'Brief Summary of the Invention' section and minor typographical corrections to a small number of words." Pet. at 18. Thus, for example, if the Challenged Claims 1-4 are supported by the written description of the '030 application and therefore entitled to its priority date—September 19, 2006—*none* of Petitioner's references qualify as prior art and the Petition must be denied in its entirety. *Dynamic Drinkware*, 800 F.3d at 1378–79. Thus, as indicated above, the Board need not even resolve the issue of written description in the even earlier provisional '273 Application. If the Challenged Claims 1-4 have written description support in the '030 Application and are entitled to its priority date of Sep. 19, 2006, then *none of Petitioner's references are prior art and the Petition must be denied.*

Accordingly, as argued herein, Petitioner has failed to meet its burden to show that its references qualify as prior art under 35 U.S.C. § 102, and its Petition must be denied.

D. Challenged Claims 1-4 of the '286 Patent Are Fully Supported by the Written Description of the '030 Application

Petitioner argues that two limitations of independent Claim 1, and two similar limitations in independent Claim 3, lack written description support in any of the earlier applications to which the '286 Patent claims priority:

- ***[1.3.1] wherein the coded instructions, when executed on a processor in the smart telephone, convert the analog variable voltage audio signal received at the microphone port to the transaction data as digital data,***
- ***[1.3.2] establish direct data exchange between the smart telephone and a second Internet-connected server and facilitate transactions by a financial institution, or purchases from an online-merchant, using the transaction data.***
- ***[3.3] converting the analog variable voltage audio signal received at the microphone port to the transaction data as digital data;***
- ***[3.4] establishing direct data exchange with an Internet-connected server providing services to a financial institution or an on-line merchant by executing coded instructions on a processor in the smart telephone; and facilitating transactions with the financial institution or purchases from the on-line merchant using the transaction data.***

Pet. at 17. According to Petitioner, “[s]upport for limitations [1.3.1]-[1.3.2], and [3.3]-[3.4] can only be found in the ‘Brief Summary of the Invention’ section of the ‘286 Patent” which was added in 2015.

As an initial matter, Patent Owner vigorously contested that the revisions to the Brief Summary of the Invention constituted “new matter” during prosecution. EX2002 at 7-11. Patent Owner painstakingly identified parts of the disclosure that supported the claims. Thereafter, the Examiner allowed the claims and apparently withdrew her contention that the '286 Patent was a “continuation in part” or

contained any new matter, permitting '286 Patent to issue as a “continuation” training priority on its face to the '842 Application, filed Oct. 27, 2014, which was a continuation of the '030 Application filed Sep. 19 2006.

However, the Petition provides little basis for assuming that the entirety of the remaining specification deriving from the '030 Application filed Sep. 19 2006 somehow provides no support for limitations [1.3.1]-[1.3.2] or [3.3]-[3.4]. Petitioner argues that “the concepts of ‘conversion of’ or ‘converting’ analog data to digital data appear nowhere else” other than the Brief Summary of the Invention section “and ‘digital’ only appears in the context of a ‘personal digital assistant’ (PDA).” Pet. at 20. Petitioner further argues that “[w]hile the '286 Patent discusses modulation of an encoded bit flow ‘using a frequency-shift keying (FSK) modulation technique,’ the discussed technique ‘creat[es] an analog waveform’ to generate an audible sound” and “occurs on a PC...or a server, not in a smart telephone.” Pet. at 20-21. Likewise, Petitioner argues that the term “computing appliance” somehow cannot encompass a “smart telephone.” Pet. at 21-27.

However, the written description of the '286 Patent—and the '030 application to which it traces priority—amply supports limitations 1.3.1-1.3.2 as well as 3.3-3.4. *See* EX2002 at 7-11.

The '286 Patent, and the '030 application, disclose “coded instructions” that are “executed on a processor in a smart telephone.” For example, they disclose that

“a modulated audio signal is generated by a sound-generating applet installed on and executable from mobile device 701, which is a smart phone in this example.” EX1001, 9:45-27, Fig. 7; EX1015 at 11. A POSITA would readily recognize that an “applet” is a form of software that is necessarily comprised of “coded instructions.” Indeed, the specification refers to a “software applet.” EX1001, 13:60; EX1015 at 15.

The '286 Patent, and the '030 application, disclose a “processor in” a “smart telephone.” For example, Fig. 4 discloses a block diagram illustrating basic electronics 400 of a key jack sound pass generator. EX1001, 7:11-13; Fig. 4; EX1015 at 8. The specification states expressly that the “[a]s a mobile device key jack 400 may be used at virtually any PC station or if so adapted any mobile device capable of a bi-directional network connection.” EX1001, 7:52-55; EX1015 at 9. The “[p]rocessing unit 409” disclosed in Fig. 4 “may be a small microprocessor.” EX1001, at 7:34-35; EX1015 at 9. Thus, a POSITA would readily recognize that the processor disclosed in Fig. 4 discloses a “processor in” a mobile device such as a “smart telephone.” Patent Owner pointed out during prosecution that “Applicant's detailed description, identical in the instant case and the parent cases, clearly teaches that the host machine may be a PC or a smart telephone.” EX2002 at 9.

The '286 Patent, and the '030 application, disclose “convert[ing] the analog variable voltage audio signal received at the microphone port to the transaction data

as digital data.” Notably, Patent Owner commented during prosecution that: “in the detailed description, different operations are described for entering data to a computerized appliance, including a smart telephone, on a microphone port. It is notoriously well-known in the art that a microphone port is used for audio input, which is notoriously well-known to be in the form of an analog variable voltage. There is no other way to use such a port.” EX2002 at 8. Thus, for example, the ’286 Patent, and the ’030 application, disclose a “soft token” whose “token values are expressed as a **modulated sound pass signal**.” EX1001, 13:39 (emphasis added); EX1015 at 15. The “generated sound or sound file or sound pass...**is** the token.” EX1001, 14:65-66 (emphasis added); EX1015 at 16. A POSITA would readily recognize that the “token” or “sound pass signal” an “analog variable voltage audio signal.” The ’286 Patent, and the ’030 application, disclose receiving the analog audio signal at a microphone port, as they disclose “play[ing] the modulated sound into the microphone input of the PC acoustically using the speaker system of the mobile device.” EX1001, 11:66-12:1; EX1015 at 13. Further, the specification and Fig. 14 disclose the “applet writ[ng] the token file in encrypted form to the root drive on the client PC.” EX1001, 14:43-45; EX1015 at 16. A POSITA would readily recognize that “writ[ing] the token file”—a “generated sound or sound file or sound pass”—is clearly “convert[ing] the analog variable voltage audio signal...to the

transaction data as digital data,” since “writing” the analog audio signal necessarily involves its conversion into the digital form of a software file.

During prosecution, in the March 29, 2017 Response, Patent Owner also pointed to Figures 4, 5, and 6 and corresponding portions of the specification as supporting this limitation. *See* EX2002 at 8-9 (“As one example, Fig. 4 illustrates a chip 401 comprising several electronic components, one of which is a[n] EEPROM. The description states: ‘A sound pass file may be stored on chip 400 in EEPROM 407 for use as a sound pass token. The file may be any suitable compression format including MP4, Wav, AVI, or others. Modem 406 and - 12 - oscillator 405 generate the signal in the form of sine waves that are demodulated by a modem provided in the applet on the user’s PC.’ Clearly this token is passed through tip-ring 402 plugged into a microphone port. As another example, Fig. 5 illustrates a key jack signal generator with the circuitry of Fig. 4, for plugging directly into a microphone port. The description states: ‘A user may insert device 501 into a microphone input and depress button 505 to close switch 404 described further above thereby activating the modem to generate and modulate the sound pass signal. The sound pass signal contains the ID number and session key embedded in the modulated sound. As a third example, Fig. 6 illustrates a smart card 601 coupled to a card reader 602. The description states: ‘Diagram 600 includes a smart card 601 with the sound pass chip embedded therein. The card plugs into card reader 602, which in turn is

plugged into the microphone input of the host commuting appliance or other line input capable of carrying sound and directly or indirectly connected to the sound card on the computing appliance such as a PC.”). The portions of the specification emphasized by Patent Owner in the March 29, 2017 Response correspond to EX1001 at 7:35-42; 8:9-14; 8:29-35, Figs. 4-6; and EX1015 at 9-10. Patent Owner further commented that these “descriptions are so explicit and clear that the applicant wonders why any question remains as to whether the applicant had possession of the invention in the sense that data is being passed to the computerized appliance as an analog variable-voltage (sound) signal.” EX2002 at 9.

The '286 Patent, and the '030 application, disclose “establish[ing] direct data exchange between the smart telephone and a second Internet-connected server and facilitat[ing] transactions by a financial institution, or purchases from an online-merchant, using the transaction data.” For example, they disclose a “token [that] is not a secure chip but a software file that works with a server driver (dll) and a client applet.” EX1001, 13:35-36 and Fig. 14; EX1015 at 15. A POSITA would readily understand that the “client” could be a “mobile device” or “smart phone,” as the specification elsewhere discloses an “applet installed on and executable from mobile device 701, which is a smart phone in this example.” EX1001, 9:45-27, Fig. 7; EX1015 at 11. The specification discloses a “direct data exchange” between a client and server (including a smart telephone), including for example that “the

authentication server passes the token contents as clear text string along with a software applet to the client.” EX1001, 13:59-61 and Fig. 14; EX1015 at 15.

The direct data exchange is clearly to facilitate transactions by a financial institution or purchases from an on-line merchant using the transaction data. For example, “Server 201 may be any type of server including a transaction portal authenticating transaction for a group of web merchants or banks. It may also be any server adapted to handle secure transactions for individuals.” EX1001, 5:36-39 and Fig. 2; EX1015 at 7. Moreover, “the server calls a driver or dll at the server or in some connected machine and receives randomly written token contents that provide the basis for future client access of one or of more than on account held for the client by one or more services” and the “token issuer and the authentication entity is a third party to the transaction between a client and a service organization maintaining an account for the client.” EX1001, 13:51-58 and Fig. 14; EX1015 at 15.

As such, it is clear that aspects of the '286 Patent, and the '030 application, tracing their priority to at least September 19, 2006, readily disclose limitations [1.3.1]-[1.3.2], as well as [3.3]-[3.4], which are substantially similar.

Moreover, contrary to Petitioner’s arguments, a POSITA would readily recognize that a “smart telephone” can be a “computing appliance.” For example, the specification discloses that a “computing appliance” is not necessarily coextensive with personal computers, referring to “a PC or other computing

appliance.” EX1001, 7:66-67; EX1015 at 9. Similarly, the specification states that “any hardware device capable of playing a sound may be incorporated as a sound pass token.” EX1001, 6:53-55; EX1015 at 8.

Accordingly, as shown in the specification of the ’286 Patent, and the ’030 application, the claim limitations referred to by Petitioner are amply supported by the written description and are entitled a priority date of at least September 19, 2006—long before all of Petitioner’s references.

E. Grounds 1-4: Petitioner Fails to Demonstrate That its References Render Obvious the Challenged Claims

1. The Petition Fails to Establish that Cho Discloses “Transaction Data” as Claimed in the ’286 Patent

For each of Grounds 1 and 3, Petitioner relies solely on Cho as allegedly disclosing “transaction data” as claimed in Claims 1 and 3, in claim limitations [1.3.1] and [3.3]. However, Cho fails to teach or suggest “transaction data” as claimed in claim limitations [1.3.1] and [3.3], and Petitioner’s Grounds 1 and 3 must fail. Since Grounds 2 and 4 challenge dependent claims 2 and 4, respectively, and do not address this deficiency of Cho, they two must be denied.

Claim limitations [1.3.1] and [3.3] each require conversion of an “analog variable voltage audio signal received at the microphone port to the transaction data as digital data”:

- *[1.3.1] wherein the coded instructions, when executed on a processor in the smart telephone, convert the analog variable voltage audio signal received at the microphone port to the transaction data as digital data*
- *[3.3] converting the analog variable voltage audio signal received at the microphone port to the transaction data as digital data*

However, Petitioner can nowhere point to “transaction data” in Cho, much less conversion of the audio signal “to the transaction data,” instead referring vaguely only to “account information” in Cho. However, in the ’286 Patent “transaction data (b1-Bn)” is involved in the generation and matching of hash codes, such that the “server hash operation occurs after the user has entered his or her PIN code and the instant transaction data for that session.” EX1001, 11:38-50 and Fig. 11. “Otherwise, the server would not have any knowledge of Bi-Bn and could not match the client hash.” *Id.*

Cho simply does not disclose “transaction data” as taught in the ’286 Patent, much less to an audio signal being converted “to the transaction data as digital data” in the context of the broader claim limitations [1.3.1] and [3.3].

a. Petitioners’ Declaration Testimony Repeats the Petition’s Unsupported Conclusions

Even considering the Petition’s accompanying declaration testimony, it too is conclusory regarding the references’ alleged disclosure. EX1003, ¶¶ 115-156; 171-199; *Harmonic*, 815 F.3d at 1363 (“Harmonic’s expert testimony ... is equally unavailing, adding nothing beyond the conclusory statements in Harmonic’s

petition.”). The declaration testimony fares no better than the Petition because “[the expert] cites no evidence and provides no analysis to support [his] conclusion.” *Deeper*, IPR2018-01310, Paper 7, 27.³

F. The Board Should Decline to Institute Grounds 1-4 Under 35 U.S.C. § 325(d)

Institution of *inter partes* review is discretionary. *Yotrio Corp. v. Lakesouth Holdings, LLC*, IPR2017-00299, Paper 7, 9 (P.T.A.B. May 15, 2017). The Director’s *Fintiv* Guidance and the *Fintiv* factors weigh against institution. *See Fintiv* Guidance (EX1033); *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”).

***Fintiv* factor 1 is neutral (possibility of stay)**

There is no parallel district litigation involving the ’286 Patent and, as such, this factor is neutral at this time.

***Fintiv* factor 2 is neutral (proximity of trial date to final written decision).**

³ *See also* 37 C.F.R. § 42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”); Patent Trial and Appeal Board Consolidated Trial Practice Guide (November 2019), 35-36 (expert testimony cannot replace a prior art disclosure and a petition cannot incorporate expert opinions by reference).

Currently, there are no trial dates in any parallel litigation involving the '286 Patent, and, as such, this factor is neutral at this time.

***Fintiv* factor 3 favors denial (investment in parallel proceedings).**

No district court in parallel litigation involving the '286 Patent has issued a substantive order relating to the patent. As such, this factor slightly favors denial, or is neutral at this time.

***Fintiv* factor 4 favors denial (overlap in issues).**

The same claims 1-4 would be at issue in any parallel litigation involving the '286 Patent and any of TCH's members, and as such, this factor favors denial given the potential future overlapping issues.

***Fintiv* factor 5 weighs in favor of denial (overlap of parties)**

As indicated at greater length in Patent Owner's analysis of factor 6, although there is no current district court litigation involving the '286 Patent, Petitioner's failure to identify TCH and TCH's member banks creates issues with potential relevance to factor 5 in future litigation. For example, TCH's member banks potentially infringe the '286 Patent, and Petitioner's failure to identify TCH or its members as real parties in interest is an attempt to shield TCH and TCH's members from the potential estoppel effects of an IPR petition, among other things. As such, although strictly speaking there are not "overlapping parties" in current parallel litigation, this does not take into account the overlap in parties arising from the

likelihood of future litigation involving TCH’s members. Petitioner’s gamesmanship in failing to identify TCH or TCH’s members as real parties in interest is therefore relevant to factor 5 as well as factor 6, and supports denial.

***Fintiv* factor 6 strongly favors denial (other circumstances).**

The Petition should be denied for failure to identify all real parties in interest, as required by 35 U.S.C. § 312(a)(2). Although Petitioner claims that only it—Askeladden, LLC—is the real party in interest in this proceeding, in fact Petitioner is an arm of the financial-services industry through The Clearing House Payments Company, L.L.C. (“TCH”). TCH is a “banking association and payments company that is owned by the largest commercial banks.”⁴ TCH owns the Petitioner, and the Petitioner is a “product of thought leadership provided by” TCH, which has a “161-year tradition of furthering the interests of the commercial banking industry in the United States[.]”⁵

Indeed, the Board has repeatedly found TCH to be a real party in interest due to its ownership, control, and funding of Petitioner. *See, e.g., Askeladden LLC v. McGhie*, IPR2015-00122, Paper 30 (P.T.A.B. Mar. 6, 2015) (finding TCH to be an undisclosed real party in interest in six Inter Partes Review proceedings); *Askeladden LLC v. Verify Smart Corp.*, IPR2017-00726, Paper 41 (P.T.A.B. Dec.

⁴ <https://www.theclearinghouse.org/about/history>; see also <https://www.theclearinghouse.org/about/owner-banks> (listing 24 banks)

⁵ <https://www.patentqualityinitiative.com/about-pqi/team>

26, 2017) (finding TCH to be an undisclosed real party in interest). Members of clear proxy entities, like Petitioner, have been held to be real parties in interest. *See, e.g., Unified Patents, LLC v. MemoryWeb, LLC*, IPR2021-01413, Paper 56 (P.T.A.B. Mar. 8 2023), *vacated on other grounds by Unified Patents, LLC v. MemoryWeb, LLC*, IPR2021-01413, Paper 76 (P.T.A.B. May 22, 2023).

Petitioner's own LLC Agreement, (EX1010 at 7-20) has evidently been revised several times in an attempt to overcome previous deficiencies that have led the Board to conclude twice that TCH was the real party in interest in IPR proceedings filed by Petitioner. In spite of these revisions, the LLC Agreement still demonstrates that TCH is a real party in interest here. For example:

- Under Section 11(e) of the Agreement, the supposedly independent members of Petitioner's "Patent Challenge Committee" can be removed by executive committee of TCH for "any act or failure to act with the provisions of or satisfy the duties and responsibilities of a member of the Patent Committee Challenge [sic]" (EX1010 at 11);
- Section 11(i) states that "any Person affiliated with [TCH] designated by the Executive Committee" may "provide such assistance and support" to members of the "Patent Challenge Committee" in "identify[ing]" a "patent or patents that could be challenged" (EX1010 at 11);

- Section 11(m) shows that TCH is the party “captitaliz[ing]” Petitioner (EX1010 at 12);
- Section 11(n) instructs Petitioner to take pains to avoid appearing as if it were “in privity” with TCH (EX1010 at 12);
- Paragraph 12 requires Petitioner to refrain from any activity that would preclude a “national bank or member bank of the Federal Reserve System from being a member of” TCH (EX1010 at 13, ¶ 12);
- Petitioner Patent Challenge Committee is required to consider challenging patents “targeting the financial services industry with patent suits” (EX1010 at 18);
- Petitioner Patent Challenge Committee is instructed to avoid appearing like a “proxy for” TCH, “if prudent” (EX1010 at 20);
- Petitioner’s Patent Challenge Committee is instructed to “initiate PTAB proceedings against patents disclosing alleged inventions that fall within the umbrella of financial services technology and preferably those patents that could be argued to relate to technology used throughout the industry” (EX1010 at 20).

This evidence is sufficient to find that TCH is a real party in interest in this proceeding. *See, e.g., Applications in Internet Time, LLC v. RPX Corp.*, 897 F.3d 1336, 1351 (Fed. Cir. 2018) (“RPX”) (“Determining whether a non-party is a ‘real

party in interest’ demands a flexible approach that takes into account both equitable and practical considerations, with an eye toward determining whether the non-party is a clear beneficiary that has a preexisting, established relationship with the petitioner”).

In its totality, Petitioner’s LLC agreement shows that TCH continues to exercise significant control over it, including the ability to hire and fire members of the Patent Challenge Committee and the right to appoint persons to “assist” the Committee in identifying problematic patents. Petitioner is instructed to target exactly the patents of concern to TCH—those affecting the financial services industry—while avoiding the appearance of being TCH’s “proxy” “if prudent.”

These facts are on all fours with *Applications in Internet Time, LLC v. RPX Corp.*, 897 F.3d 1336, 1352 (Fed. Cir. 2018), where the court found it significant that RPX considered “the number of RPX clients” under suit by a particular patent when it decided to challenge the patent, and deemed it a factor supporting its finding that RPX was a real party in interest. Similarly here, the issues in Petitioner’s LLC agreement are “suggestive of whether” TCH or any of its members “would benefit from having [Petitioner] file an IPR petition challenging patents that have been asserted against” TCH, its members, or their interests. *Applications*, 897 F.3d at 1352. This factor strongly favors denial.

Accordingly, the Board should deny institution on Grounds 1-4 under § 325(d).

IV. CONCLUSION

For the foregoing reasons, Patent Owner respectfully submits that the Board should deny the Petition.

Dated: September 11, 2023

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CERTIFICATE OF WORD COUNT

This Petition complies with the requirements of 37 C.F.R. § 42.24. As calculated by the word count feature of Microsoft Word for Office 365, it contains **6,669** words, excluding the words contained in the following: Table of Contents, Table of Authorities, List of Exhibits, Certification Under § 42.24(d), and Certificate of Service.

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CERTIFICATE OF SERVICE

It is hereby certified that on September 11, 2023, a copy of the foregoing document was served via Electronic Mail upon the following:

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