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Paper 29
Date: October 19, 2023

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LIGHTSPEED COMMERCE INC. AND
CLOVER NETWORK, LLC,
Petitioner,

v.

CLOUDOFCHANGE, LLC,
Patent Owner.

IPR2022-00997
Patent 10,083,012 B2

Before HUBERT C. LORIN, JEREMY M. PLENZLER, and CARL M. DEFRANCO, *Administrative Patent Judges.*

PLENZLER, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

A. Background and Summary

Lightspeed Commerce Inc. filed a Petition requesting *inter partes* review of claims 1–20 of U.S. Patent No. 10,083,012 B2 (Ex. 1001, "the '012 patent"). Paper 1 ("Pet."). CloudofChange, LLC ("Patent Owner")

filed a Preliminary Response. Paper 7 ("Prelim. Resp."). We instituted an *inter partes* review of claims 1–20 of the '012 patent on all grounds of unpatentability alleged in the Petition. Paper 9 ("Institution Decision" or "Inst. Dec."). Clover Network, LLC was joined to this proceeding on June 8, 2023. Paper 21. This decision refers to Lightspeed Commerce Inc. and Clover Network, LLC, collectively, as "Petitioner."

After institution of trial, Patent Owner filed a Response (Paper 13, "PO Resp."), Petitioner filed a Reply (Paper 19, "Pet. Reply"), and Patent Owner filed a Sur-Reply (Paper 23, "PO Sur-Reply").

An oral hearing was held on August 2, 2023, and the record includes a transcript of the hearing. Paper 28 ("Transcript" or "Tr.").

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a). For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1–20 of the '012 patent are unpatentable.

B. Related Matters

The parties indicate that the '012 patent is involved in *CloudofChange, LLC v. Lightspeed POS Inc.*, 6:21-cv-01102 (W.D. Tex. Oct. 22, 2021) ("the Lightspeed Litigation"). Pet. 1; Paper 4, 1. The parties also indicate that the '012 patent was previously involved in a lawsuit *CloudofChange, LLC v. NCR Corporation*, 6-19-cv-00513 (W.D. Tex. Aug. 30, 2019) ("the NCR Litigation"), which resulted in a jury verdict for Patent Owner, but is still pending final judgment. Pet. 1; Paper 4, 1.

The '012 patent is continuation filing of U.S. Patent No. 9,400,640 B2, which is involved in *inter partes* review IPR2022-00779. A final written decision has been entered in that proceeding. U.S. Patent No.

11,226,793 B2 is also a continuation filing of U.S. Patent No. 9,400,640 B2, and is involved in co-pending *inter partes* review IPR2022-01143.

C. The '012 Patent

The '012 patent relates to "a system and a method for online, web-based point of sale (POS) building and configuration." Ex. 1001, Abstract. According to the '012 patent, "[c]urrent practice in the field of assembling point of sale systems includes manually coding front-of-screen information," which "contains menu selections, page selections, and general answers to business questions." *Id.* at 1:31–35. The '012 patent explains that "in the prior art, a specialized programmer had to design the layout and data for these POS touch keys," but "[w]ith this invention, the store operator will be able to build his POS screens online over the Internet." *Id.* at 3:2–4, 10–11.

"In this invention, this product data and the touch key structure is stored in relational databases in the back office which is stored on the web servers 36 shown in FIG. 3." Ex. 1001, 2:64–67. Figure 3 from '012 patent is reproduced below.

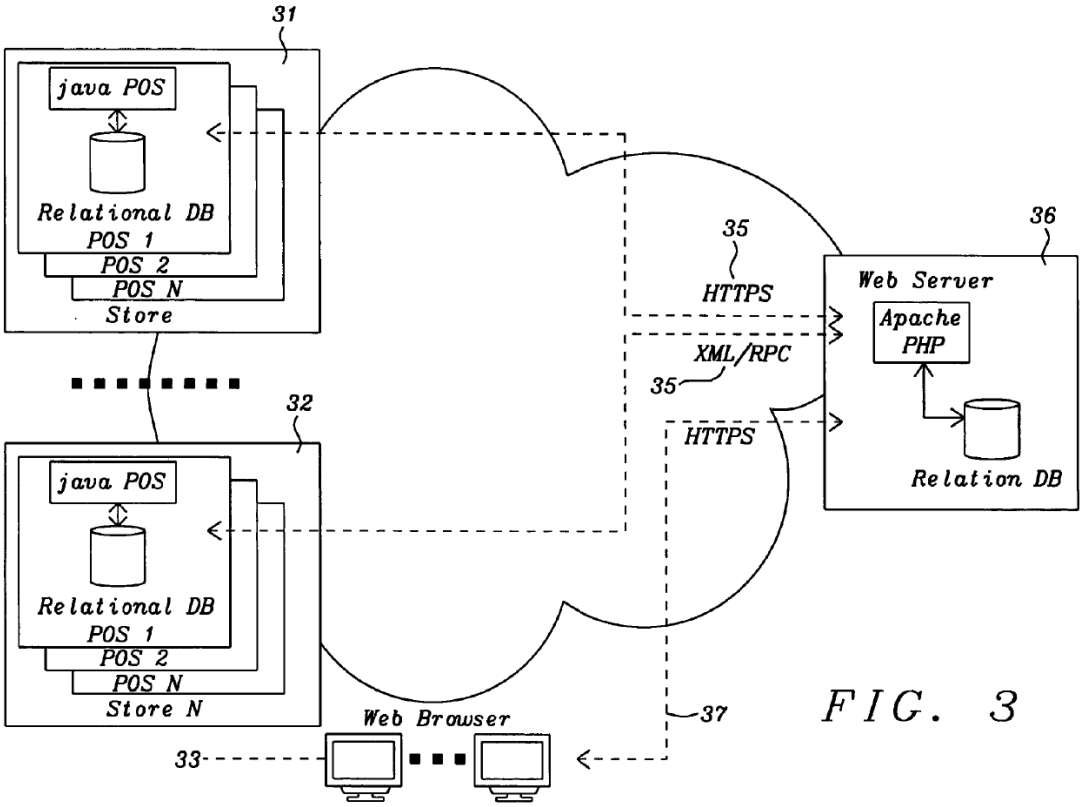

FIG. 3

"F[igure] 3 is a system diagram for web-based back office which supports point of sale terminals" (*id.* at 2:38–39) and "shows a high level diagram of this invention" (*id.* at 3:52).

The discussion of Figure 3 spans little more than one column of the '012 patent. *See* Ex. 1001, 3:52–4:58. And that discussion lacks any specificity that would indicate that the web-based back office architecture, itself, is anything other than well-known. The Specification explains, for example:

> POS 31 is in Store 1 and POS 2 (32) is in Store 2. Each POS includes personal computer hardware and software. Additional POS terminals beyond those shown, as well as additional stores beyond the two shown, are within the scope of the invention. Each POS normally operates with a hardware/software connection 35 to the Internet or Web.

Id. at 3:54–60. "[I]f the web goes down, the POS terminal continues to operate" because "[t]here is a 'loose coupling' of the POS to the back office (BO): the POS to BO connection is not required for the basic business functions of the POS" and "[a]ll transaction data is stored in a relational database on the hard drive in the POS." *Id.* at 3:60–65.

"The POS terminals communicate via HTTP protocol (hypertext transfer protocol) 35 with Back-office BO software, which is implemented on web servers 36, which can be located anywhere in the world." Ex. 1001, 4:31–35. The '012 patent explains that its "POS builder system can be provided as a service or deployed within a corporation," and notes that "[f]or example, Software as a Service (SAAS) is a software distribution model in which applications are hosted by a vendor or service provider and made available to customers over a network, typically the Internet." *Id.* at 6:7–12.

D. Illustrative Claim

> 1. A web-based point of sale (POS) builder system comprising:
>
> a web server including POS builder software installed thereon;
>
> one or more POS terminals generated by said POS builder software and said one or more POS terminals configured to be accessible at one or more terminal devices, said POS terminals configured to accept POS transactions and collect corresponding transaction data; and
>
> a POS builder interface configured to be accessible via network communication with said web server over a communications network;
>
> wherein said POS builder interface is configured to be utilized to access said POS builder software for programmatically creating or modifying said one or more POS terminals in real time over the communications network, wherein said POS builder software is configured to interact

with said one or more POS terminals over the communications network in order for the web-based point of sale (POS) builder system to perform functions in accordance with instructions sent from the POS builder interface;

wherein said POS transactions and corresponding transaction data from said one or more POS terminals are configured to be transmitted to said web server via the communications network; and

wherein each POS transaction is correlated with corresponding transaction data occurring at said one or more POS terminals.

Ex. 1001, 6:26–54.

E. Evidence and Asserted Grounds

Petitioner asserts that claims 1–20 would have been unpatentable on the following grounds:

Claim(s) Challenged	35 U.S.C. §[1]	Reference(s)/Basis
1–20	103	Woycik[2]
1–20	103	Olson[3], Woycik
1–20	103	Tengler[4]

Petitioner submits a declaration from Stephen Gray. Ex. 1002. Patent Owner submits a declaration from Alex Cheng. Ex. 2012.

[1] The Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284 (2011), amended 35 U.S.C. § 103, effective March 16, 2013. Because the application from which the '640 patent issued was filed before this date, the pre-AIA version of § 103 applies.
[2] US Patent Pub. No. US 2007/0265935 A1, published Nov. 15, 2007 (Ex. 1004).
[3] US Patent Pub. No. US 2008/0208696 A1, published Aug. 28, 2008 (Ex. 1006).
[4] US Patent Pub. No. US 2005/0049921 A1, published Mar. 3, 2005 (Ex. 1005).

II. ANALYSIS

A. Legal Standards

Petitioner bears the burden of persuasion to prove unpatentability, by a preponderance of the evidence, of the claims challenged in the Petition. 35 U.S.C. § 316(e). This burden never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

As seen above, Petitioner's challenges are based on obviousness. A claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before at the time of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved based on 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 ordinary skill in the art; and (4) when in the record, objective evidence of non-obviousness. *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17–18 (1966).

B. Level of Ordinary Skill in the Art

The level of ordinary skill in the art is "a prism or lens" through which we view the prior art and the claimed invention. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). The person of ordinary skill in the art is a hypothetical person presumed to have known the relevant art at the time of the invention. *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). In determining the level of ordinary skill in the art, we may consider certain factors, 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." *Id.*

1. Petitioner

Petitioner contends that "[a] 'person of ordinary skill in the art' (POSITA) at the time of the effective filing date of the '012 patent would have been someone with a working knowledge of designing and developing web-based software and systems" and "would have a Bachelor of Science in computer science or a related field, and approximately two years of professional experience or equivalent study in the design and development of web-based systems, including web-based POS systems." Pet. 7; *see also* Ex. 1002 ¶ 17 (repeating the same). Petitioner contends that "[a]dditional graduate education could substitute for professional experience, or significant experience in the field could substitute for formal education." Pet. 7; *see also* Ex. 1002 ¶ 17 (repeating the same).

2. Patent Owner

Patent Owner disputes Petitioner's characterization of a person of ordinary skill in the art. PO Resp. 8–10. Patent Owner contends that "Petitioner's proposed definition of a POSITA does not require any experience with retail POS systems—let alone **building POS screens**—that are the field of the '012 patent" and "makes experience in retail POS systems optional." PO Resp. 8. Patent Owner contends that its "proposed definition of a POSITA remedies this deficiency by including experience or equivalent study in the field of the '012 Patent, retail POS systems, including experience with building POS screens." *Id.* at 9. According to Patent Owner "a proper definition of a POSITA . . . includes experience or additional study in the field of web-based POS builder software and

systems." *Id.* at 9–10. Patent Owner contends that "Mr. Gray is not a POSITA with reference to the '012 Patent" and "[t]estimony of an expert that fails to meet the definition a POSITA should be excluded."[5] *Id.*

3. Analysis

The level of skill in the art is a reference point for gauging what would have been obvious based on the reference disclosures. *See Okajma*, 261 F.3d at 1355. In other words, the lens of the level of ordinary skill in the art does not change a prior art's disclosure, though it may change one's understanding of what is disclosed. Patent Owner does not explain how its definition provides a reference point that would alter the Petition's assertion of obviousness.

Indeed, as noted by Petitioner, "P[atent]O[wner]'s expert concedes 'the difference in levels of ordinary skill proposed by the parties do not change his opinions about the disclosure of the prior art.'" *Id.* (citing Ex. 1035, 156:25–157:6); *see also* Ex. 1034, 10–14. Patent Owner provides no rebuttal to this position, other than a single sentence in its Sur-Reply alleging that "[a]lthough experienced in 'point-of-transaction systems,' Petitioner's expert is not a POSITA with respect to the '012 Patent under either standard." PO Sur-Reply 23 (citing PO Resp. 8–10).

Petitioner's position has support in the record, not only based on the statements from Patent Owner's expert noted above, but also with respect to the issues presented in the Patent Owner Response. With respect to the challenges based on Woycik, for example, the disputed issues relate to server considerations. There is no dispute that Woycik teaches POS builder

[5] There has been no motion filed by Patent Owner to exclude the testimony of Mr. Gray.

software. Indeed, at oral hearing Patent Owner expressly acknowledged that is taught in Woycik. *See* Tr. 42:3–7 (When asked: "[D]oes Woycik teach point-of-sale builder software?" counsel for Patent Owner answered: "I don't think we've disputed that that the administrative tool is building things. Where we disagree is that Woycik's administrative tool doesn't fit within the claimed architecture of any of the three Patents. But, I mean, Woycik talks about building menus and some other screens."). The disputes regarding the purportedly "claimed architecture" concern whether Woycik requires an in-store server (PO Resp. 22–25), whether Woycik teaches its point of sale builder software installed on a web server (*id.* at 25–27), and whether Woycik teaches its point of sale builder interface accessible via communications with a web server (*id.* at 27–29).

Petitioner's proposed modifications in the Olson challenge concern "the mere application of a known technique (e.g., the [undisputedly disclosed] POS builder of *Woycik's* administrative tool) to a known system (e.g., *Olson's* web-based back-office system) ready for improvement (i.e., to improve features and functionality provided by *Olson's* POS system)." Pet. 49. That is, the challenge concerns placing known software on a web-based back-office system.

Accordingly, we discern no reason that Mr. Gray's qualifications are insufficient to testify on the disputed issues.[6]

Nevertheless, we also agree with Petitioner that a person of ordinary skill in the art is not limited to someone experienced building POS screens. Although, as noted above, the '012 patent characterizes the novelty as

[6] As noted below, Petitioner has not established unpatentability of any claim based on the Tengler challenge.

eliminating the need for a specialized programmer to build POS screens, we know that is not novel, as Patent Owner, itself, now acknowledges as explained above. Rather, what is now alleged by Patent Owner to be the novel aspect of the invention relates to the web-based back office system.

And even if we accept that experience with POS systems is necessary, as Petitioner notes, and Patent Owner does not dispute, "Mr. Gray explains that his work experience 'had to do with point of sale ***and*** point of transaction.'" *See* Pet. Reply 3 (citing Ex. 1036, 53:3–54:2). Patent Owner makes much of purported differences between point of sale and point of transaction, but never provides any meaningful articulation of what those actual differences are or how they affect Mr. Gray's qualifications to testify in this proceeding. *See* Pet. Reply 3; PO Sur-Reply 23 (stating without further discussion: "Although experienced in 'point-of-transaction systems,' Petitioner's expert is not a POSITA with respect to the '012 Patent under either standard. POR, 8-10.").

For purposes of this decision, we analyze the asserted prior art with respect to the level of skill set forth by Petitioner, but we see no meaningful difference in the outcome of this decision if we were to apply the level of skill in the art set forth by Patent Owner.

C. Claim Construction

In an *inter partes* review, we construe a patent claim "using 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) (2021). Under this standard, the words of a claim generally are given their "ordinary and customary meaning," which is the meaning the term would have to a person of ordinary skill at the time of the invention, in the context of the

entire patent including the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc).

Petitioner offers no particular construction for any claim term, other than "communications network," found in claims 1 and 14. Pet. 8–9. According to Petitioner, "terms should be given [the] 'ordinary and customary meaning' to a POSITA." *Id.* at 8. Petitioner notes that "Prior *Markman* orders [from the NCR Litigation] do not impact the Petition's grounds." Pet. 8 n.3 (citing Exs. 1024, 1025).

Patent Owner disputes Petitioner's contention regarding the prior Markman orders. PO Resp. 10. Patent Owner "proposes that the PTAB adopt Judge Albright's constructions in the Lightspeed Litigation and final constructions in the NCR Litigation." *Id.* at 12. Patent Owner addresses specifically only the preamble of claims 1 and 14 ("a web-based point of sale (POS) builder system"). *Id.* at 12–13. Referencing the claim construction orders from the NCR Litigation, Patent Owner contends that the preambles of claims 1 and 14 should be construed as a point of sale (POS) builder system that requires the internet. *Id*. at 12 (citing Ex. 1024, 1).

In its Reply, Petitioner notes that Patent Owner's contentions regarding the preamble are contrary to the positions taken by Patent Owner in both the NCR Litigation and the Lightspeed Litigation. Pet. Reply 4–5. Petitioner contends that "[t]he '012 claims recite a 'communications network,' not a 'network comprising the Internet' as in the '640 and '793 claims" and "P[atent]O[wner]'s proposed construction would improperly limit the claimed 'communications network' to the Internet." *Id.* at 6. According to Petitioner, however, "[e]ven if the preamble is limiting, the Petition's prior art discloses and renders it obvious." *Id.* (citing Pet. 16–17, 46, 50–51, 67–68). In response, Patent Owner reiterates that it "asks this

Panel to adopt the Court's prior constructions for all claims." PO Sur-Reply 3.

Pursuant to our authorization, and without objection from Patent Owner, Petitioner submitted a Supplemental Claim Construction Order from the District Court in the Lightspeed Litigation, including final claim constructions for that proceeding. Ex. 1041. That order determined that the preamble is not limiting.[7] We agree.

"In general, a preamble limits the invention if it recites essential structure or steps, or if it is 'necessary to give life, meaning, and vitality' to the claim." *Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002). A preamble, however, "generally is not limiting when the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention." *Id.* at 809.

We agree with Petitioner and the Supplemental Claim Construction Order from the District Court in the Lightspeed Litigation that the preamble is unnecessary to understand the claim. Here, the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention.

We do not need to construe any terms expressly to reach our decision. *See Realtime Data LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) ("The Board is required to construe 'only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.'"

[7] The parties agree that this issue has been fully briefed. *See* Tr. 21:2–6, 38:25–39:3.

(quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

D. Secondary Considerations of Non-Obviousness

Patent Owner alleges that "[s]econdary considerations further confirm the patentability of Claims 1–20." PO Resp. 70 (citing Ex. 2015 ¶¶ 157–162). The cited paragraphs of Mr. Cheng's testimony essentially repeat, verbatim, pages 71–75 of the Patent Owner Response, which we address below.

Objective indicia of non-obviousness may include long-felt but unsolved need, failure of others, unexpected results, commercial success, copying, licensing, industry praise, and expert skepticism. *Mintz v. Dietz & Watson, Inc.*, 679 F.3d 1372, 1379 (Fed. Cir. 2012). "[O]bjective indicia may often be the most probative and cogent evidence of nonobviousness in the record," and "help turn back the clock and place the claims in the context that led to their invention." *Id.* at 1378. Evidence of objective indicia of non-obviousness "must always when present be considered en route to a determination of obviousness." *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1349 (Fed. Cir. 2012); *see also Apple Inc. v. Samsung Elecs. Co.*, 839 F.3d 1034, 1048 (Fed. Cir. 2016) (en banc).

Objective indicia of non-obviousness are "only relevant to the obviousness inquiry 'if there is a nexus between the claimed invention and the [objective indicia of non-obviousness].'" *In re Affinity Labs of Tex., LLC*, 856 F.3d 883, 901 (Fed. Cir. 2017) (quoting *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299, 1312 (Fed. Cir. 2006)). For objective indicia of non-obviousness to be accorded substantial weight, their proponent must establish a nexus between the evidence and the merits of the claimed

invention. *ClassCo, Inc. v. Apple Inc.*, 838 F.3d 1214, 1220 (Fed. Cir. 2016).

As the Federal Circuit has explained, "a patentee is entitled to a rebuttable presumption of nexus between the asserted evidence of secondary considerations and a patent claim if the patentee shows that the asserted evidence is tied to a specific product and that the product 'is the invention disclosed and claimed.'" *Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366, 1373 (Fed. Cir. 2019) (quoting *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988)). A patentee is not entitled to a presumption of nexus if the patented invention is only a component of a commercially successful machine or process. *Id.* Once "the patentee has presented a *prima facie* case of nexus, the burden of coming forward with evidence in rebuttal shifts to the challenger . . . to adduce evidence to show that the commercial success was due to extraneous factors other than the patented invention." *Demaco*, 851 F.2d at 1392–93.

Here, we have no presumption of nexus. Nor does Patent Owner allege such a presumption should apply. *See* PO Resp. 70–75.

Patent Owner contends that "[t]here is a strong nexus between [Patent Owner]'s claimed invention (recited in Claims 1–4) and [Patent Owner]'s secondary consideration evidence." PO Resp. 71. Patent Owner relies on the jury verdict from the NCR litigation to support its contentions regarding nexus and commercial success. *See id.* at 72. We reproduce the totality of those contentions (a single paragraph) below to illustrate the lack of evidence regarding nexus and commercial success.

> During the jury trial in the NCR Litigation, evidence of NCR's system and sales were presented. At the conclusion of the trial, a jury verdict was issued finding that: (i) none of the asserted patent claims (Claims 1-4 and 9) were invalid; (ii)

> NCR's infringement was willful; and (iii) CloudofChange was entitled to $13,200,000 in damages. EX2008, 6-8. Despite the jury verdict finding infringement and willfulness, NCR continues to use its Silver Product. The trial testimony in the NCR Litigation established that the NCR Silver product infringed Claims 1-4 and had sales of over $100 million. EX2010, 164:12-20. Therefore, there is evidence that the commercial success of the NCR Silver product is covered by the claimed combination as a whole as recited in Claims 1-4 of the '012 Patent. EXs2009-2011, 2023. Accordingly, a nexus between the novel and unique combination of elements of CloudofChange's claimed web-based POS builder system and the NCR Silver sales is clearly established here. As found by the NCR jury, NCR's silver product embodies the novel and unique claimed features of Claims 1-4 of the '012 Patent. EX2008, 4, 6-8. Therefore, there is a nexus between the claimed invention as a whole, as recited in Claims 1-4 and 9, and the commercial success.

PO Resp. 72. Exhibit 2008, referenced above, is the jury verdict from the NCR Litigation, which includes no detail beyond yes/no answers and a specified amount of damages. Exhibits 2009–2011, also cited above, contain the transcript of the jury trial in the NCR Litigation and include over 900 pages. And as seen above, Patent Owner provides a specific citation to only 9 lines on one page of that transcript for the proposition that "[t]he trial testimony in the NCR Litigation established that the NCR Silver product infringed Claims 1–4 and had sales of over $100 million." Finally, Exhibit 2022, also cited generally above, is hundreds of pages of deposition testimony from Stephen Gray, with no specific citation to any portion of that testimony.

Petitioner was not the defendant in the NCR litigation. And Patent Owner makes no attempt to identify any features of the "NCR Silver" product, which it identifies as the commercially successful product. We do

not credit testimony from Mr. Cheng that a nexus existed between the claims and the NCR Silver product because it has no basis in fact. Rather, it is conclusory and based only on the jury verdict of infringement in the NCR Litigation. *See, e.g.*, Ex. 2015 ¶ 160.

We simply have no way to determine whether a nexus exists, let alone Patent Owner establishing a nexus between the evidence and the merits of the claimed invention. Accordingly, Patent Owner has failed to establish nexus.

Even if Patent Owner had established nexus, there is insufficient evidence to show that the NCR Silver product was a commercial success. The jury verdict form simply asks whether "NCR has infringed the . . . claims of the '012 patent" (Ex. 2008, 3) and asks for "the amount of damages . . . for NCR's infringement of the '640 Patent and/or the '012 Patent" (*id.* at 7). There is no evidence, such as market share, establishing that the NCR Silver product was a commercial success. *See, e.g.*, *In re Applied Materials, Inc.*, 692 F.3d 1289, 1300 (Fed. Cir. 2012) (discussing the importance of market share compared to sales, alone, to prove commercial success). And, here, we do not even know how the damages relate to the two identified patents individually.

Patent Owner's additional allegations regarding long-felt need are also unavailing. *See* PO Resp. 73–75.

Long-felt need can be shown by evidence that indicates that the prior art had a recognized need for a solution to the problem and that others had tried and failed to find a solution to that problem. *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1325 (Fed. Cir. 1999); *Stratoflex v. Aeroquip*, 713 F.2d at 1540. Notably, the case law characterizes the need in terms of a long-felt but unresolved need. *Al-Site*, 174 F.3d at 1325 (discussing "long felt but

unresolved needs"). Accordingly, Patent Owner must show that the need was both known and not resolved.

Patent Owner fails to provide evidence to support its allegations regarding long-felt need. Instead, Patent Owner cites to conclusory paragraphs from Mr. Cheng's declaration that simply parrot the statements in the Petition. And, based on Patent Owner's Response, it is not entirely clear what the prior art allegedly had recognized as a problem needing a solution, let alone that others had tried and failed to find a solution to that problem. There is simply no evidence supporting Patent Owner's position.

Moreover, Patent Owner must also show that if the need was known, it was also unresolved. As best we can decipher what the alleged need was, based on our analysis of the challenges below, that need was already met. For example, Patent Owner appears to attempt to characterize the solution to the problem (i.e., addressing the long-felt need) as illustrated in Figure 3 of the '012 patent. *See* PO Resp. 73–74. But that exact arrangement was already disclosed in Olson's Figure 4. *See* Ex. 1006, Fig. 4.

Finally, we note that it is unclear how the claimed arrangement provides a solution to the problem that others had tried and failed to solve. Indeed, the only reference to any claim is Patent Owner's allegation that "[b]y contrast, as [Patent Owner] explains above, the web-based POS builder system is built completely on the web and the software communicates from webserver 36 to POS 31 in store, as recited in claims. EX1001, Claims 1, 14." PO Resp. 73–74.

For at least the reasons set for above, Patent Owner's evidence of non-obviousness is entitled to little, if any, weight.

E. Woycik Challenge

Petitioner asserts that claims 1–20 are unpatentable under 35 U.S.C. § 103 as obvious over Woycik in view of the knowledge of a person of ordinary skill in the art. Pet. 16–46.

Although claims 1–13 recite a system and claims 14–20 recite a method, the claims are similar in scope. For purposes of this proceeding, the claims are treated the same by both parties. *See* Pet. 46 (referring to the challenge of claims 1–13 for claims 14–20); PO Resp. 38 (referring to the response regarding claims 1–13 for claims 14–20). For simplicity, our discussion references the system claims, with the understanding that the discussion applies equally to the method claims unless otherwise noted.

1. Woycik

Woycik "relates generally to computer-based systems used for ordering goods and services and, more particularly, to self-service terminals and software tools for administering self-service terminals." Ex. 1004 ¶ 4. Woycik explains that "Point of Sale (POS) systems provide a means by which ordering and purchasing transactions can be carried out electronically at the store or other venue where the goods or services are supplied." *Id.* ¶ 6. According to Woycik, "[s]elf-service POS systems typically have a central computer acting as a server and one or more terminals which are the individual client units that are used by customers to input their orders." *Id.* ¶ 7.

Woycik describes an "administration tool application [that] includes a menu editor that enables the administrator to create and edit the interactive menu screens provided by the self-order application at the self-service client terminals." Ex. 1004 ¶ 16. "The menu editor enables the administrator to, during creation/editing of an interactive menu screen, select a template for

the interactive menu screen and associate functions with the buttons included on the selected template." *Id.* ¶ 19. Woycik explains that "there are many possible arrangements and the administrative tool application may be located at a variety of locations, including . . . an offsite location provided that the administrative tool application is able to communicate with the server." *Id.* ¶ 17.

Figure 1 of Woycik is reproduced below.

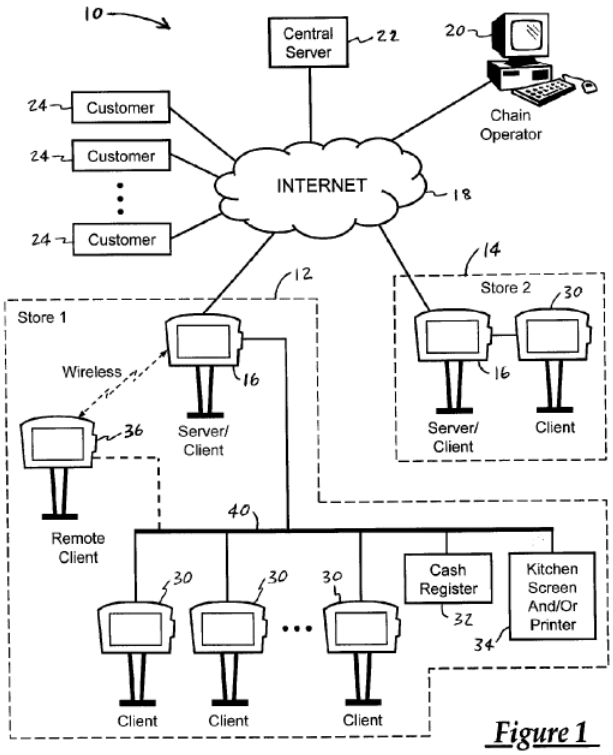

Figure 1

Figure 1 of Woycik is a schematic illustration of a "self-service ordering system." Ex. 1004 ¶ 31. "[R]ather than using a dedicated 'back room' computer as the local server, one of the kiosks 16 is used both as a client to permit customer entry of orders and as the local server to interface to the Internet 18 and to respond to requests from the local client kiosks 30." *Id.* ¶ 72. "In each store [12, 14], the local (on-site) server 16 is connected to the Internet 18 which allows remote access by the restaurant chain operator 20

and enables the local server 16 to access a central server 22 for software and media updates." *Id.* ¶ 71.

Woycik explains that "the local server kiosk 16 further includes an administrative tool comprising a second user interface application that can be accessed by the administrator to perform various administrative functions such as configuring kiosks, creating and editing menus and available food items, and specifying tax and payment features of the system." Ex. 1004 ¶ 73. Woycik explains that an alternative "approach is to have the administrative tool loaded on the central server 22 and then provide the chain operator 20 with web access to the central server 22." *Id.* ¶ 75. "In this approach, the central server 22 then accesses and stores updated configuration information on the local server 16." *Id.*

Figure 2 illustrates an exemplary kiosk from Woycik's system, and is reproduced below.

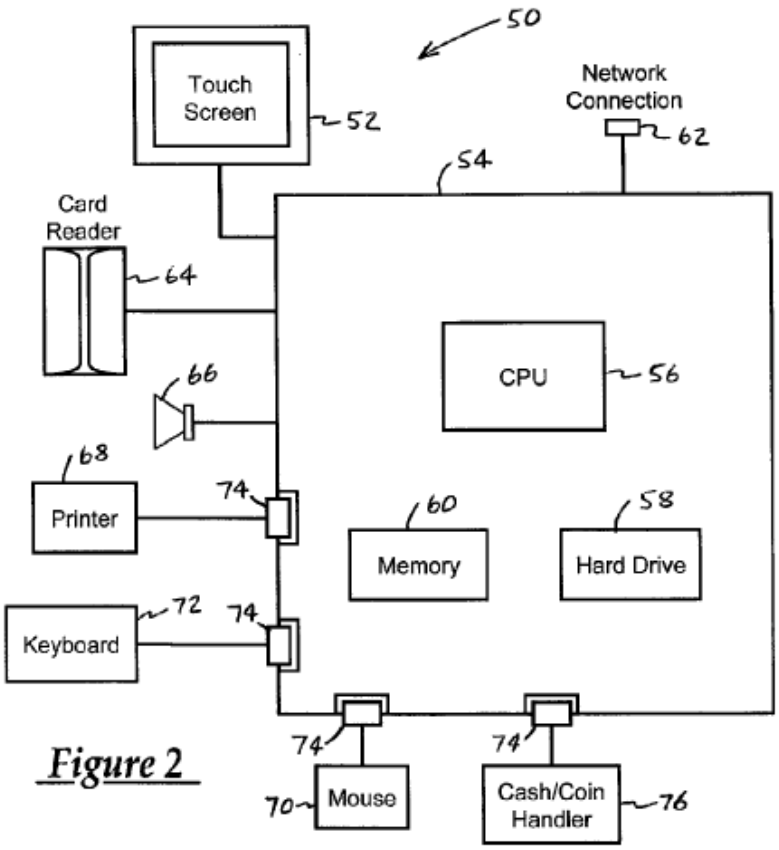

Figure 2

Figure 2 is "an exemplary kiosk of the ordering system." Ex. 1004 ¶ 32. "The kiosk 50 includes most of the elements commonly found in a general purpose computer." *Id.* ¶ 77. In "one embodiment of a kiosk of the ordering system" seen in Figure 2, "[t]he kiosk 50 includes . . . display screen 52 implemented as a touch screen that operates as both a display unit and an input device for use by customers and administrators." *Id.* ¶ 77.

Figure 3 further illustrates Woycik's system, and is reproduced below.

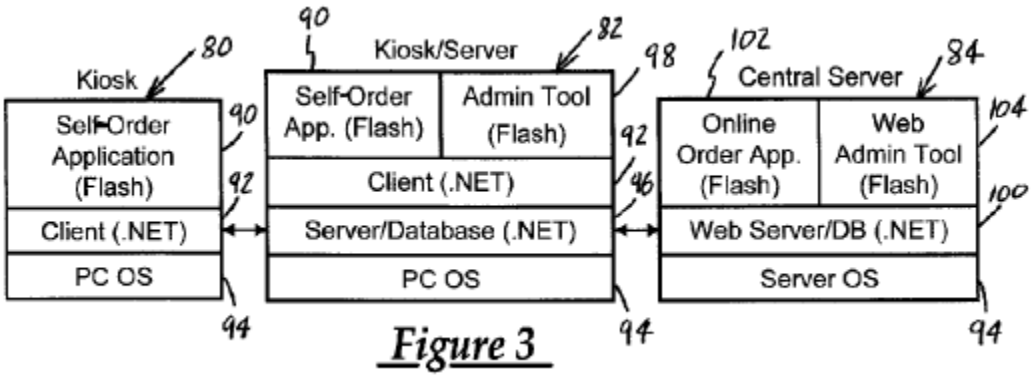

Figure 3

Figure 3 "illustrates the various software layers running on the client kiosks, client/server kiosk, and central server in the . . . ordering system." Ex. 1004 ¶ 33. Kiosk 80, kiosk/server 82, and central server 84 in Figure 3 correspond to kiosk 30, kiosk/server 16, and central server 22, respectively, in Figure 1. "[T]he server kiosk 82 . . . includes not only the client program 92, but also a server program 96 (including its associated database) as well as an administrative tool 98 for configuring the server program 96." *Id.* ¶ 79. But as noted above, an alternative "approach is to have the administrative tool loaded on the central server 22." *Id.* ¶ 75.

With Woycik's administration tool, "the store owner or chain operator can carry out administration of the system using a simplified user interface that requires little if any training or experience with computers." Ex. 1004 ¶ 80. "Furthermore, the web services platform provided by .NET can be used to provide remote administration by the chain operator from any Internet-connected computer (such as a home office computer) so that various store locations can be configured from a single computer." *Id.* According to Woycik, "[t]he programming needed to implement this software architecture strategy is known to those skilled in the art." *Id.*

2. Claims 1 and 14

Petitioner cites Woycik as teaching every limitation of claim 1. *See* Pet. 16–31. The majority of Petitioner's contentions regarding Wojcik's teachings are not disputed by Patent Owner. *See* PO Resp. 22–29. We adopt Petitioner's contentions and supporting evidence for purposes of this decision, and note that as explained further below, those contentions are effectively undisputed.

Patent Owner's dispute is based primarily on features not required by the claims, or issues that are not related to the actual bases for Petitioner's challenges.

Patent Owner contends, for example, that "*Woycik* does not disclose a 'web-based point of sale (POS) builder system' at least because Woycik requires an in-store server and not the Internet." PO Resp. 22. This dispute concerns the preamble (i.e., the recitation of "a web-based point of sale (POS) builder system"). As explained above, the preamble is not limiting.

Nevertheless, as explained further below, these contentions are also not persuasive because Woycik teaches its system being web-based and using the Internet. Patent Owner's ultimate dispute appears to be that Woycik *also* uses an in-store server. *See, e.g.*, PO Resp. 20 ("Unlike the claimed technology, which communicates directly from the web server to the POS system located in the store, Woycik's system and software communicates from the central server 84 to the in-store local server 82 to the kiosk 80."). Patent Owner, however, identifies nothing the claim that

precludes the use of an in-store server *in addition to* the POS builder system being installed on a web server.[8]

a. a web server including POS builder software installed thereon

Petitioner contends that Woycik's administrative tool is POS builder software. Pet. 17 (providing an annotated version of Woycik's Figure 3 identifying Woycik's "web based administration tool" as "POS builder software"). Petitioner contends that Woycik's administrative tool (point of sale builder software) is loaded on the central server 22 (web server). *Id.* at 16 (citing, e.g., Ex. 1004 ¶ 75); *see also id.* at 17 (illustrating the Woycik's "web based administration tool" (POS builder software) on the web server in the annotated version of Woycik's Figure 3).

Initially, we note that, although Patent Owner alleges that "*Woycik* does not teach (or even mention) POS builder software," that allegation has no merit. PO Resp. 25; *see also id.* at 26. Indeed, as explained above, Patent Owner, itself, acknowledges such a teaching in Woycik. *See* Tr. 42:3–8. Accordingly, Petitioner's contention that Woycik teaches POS builder software is undisputed.

Patent Owner's dispute regarding the recitation of "a web server including POS builder software installed thereon" relates to Woycik's system including a local server. PO Resp. 25–27. Patent Owner contends that "[w]hichever version of the administrative tool that is used—whether running locally, or locally with remote access—*Woycik* teaches that the local

[8] Patent Owner additionally provides contentions related to "implementing SAAS [(software as a subscription)] with [Woycik's] system." PO Resp. 22. It is unclear from Patent Owner's contentions, and we do not see, how this relates to any particular claim limitation.

administrative tool configures the server kiosk." *Id.* at 27 (citing Ex. 2015 ¶ 72).

Paragraph 75 of Woycik explains that "[r]emote access . . . allows the chain operator 20 to remotely run the administrative tool," which "can be done several ways." Woycik provides three examples: (1) "One is for the chain operator 20 to have the administrative tool loaded on a remote computer," where "the remote computer can access the configuration information (menu screens, items, and other settings) at the local server 16, then allow the operator to make changes, and then update the local server 16 with the new configuration information"; (2) "A second approach is to have the administrative tool loaded on the central server 22 and then provide the chain operator 20 with web access to the central server 22. In this approach, the central server 22 then accesses and stores updated configuration information on the local server 16"; and (3) "A third approach is to provide a web interface to the administrative tool on the local server 16 so that the chain operator 20 can access this interface from any Internet connected general purpose computer." Ex. 1004 ¶ 75.

Patent Owner appears to address the first and third examples from Woycik's paragraph 75 reproduced above, but not the second example, which is the basis for the challenge in the Petition. *See* Pet. Reply 8 ("The [Patent Owner Response] mischaracterizes this approach and attacks *Woycik*'s alternative approaches on which Petitioner does not rely."). As Petitioner notes, "there is no meaningful dispute *Woycik* discloses POS builder software (e.g., administrative tool) that runs on a remote web server (e.g., central server 22/84) and communicates with a POS terminal (e.g., server/kiosk 16) over the Internet (a communications network)." *Id.*

In its Sur-Reply Patent Owner contends that "Petitioner does not, and cannot, identify a figure where the remote portion is present but the local administrative tool is absent." PO Sur-Reply 9. This is not persuasive because the claim does not preclude the POS builder software being present at any particular additional location.

As noted above, Woycik expressly teaches that "[a] second approach is to *have the administrative tool loaded on the central server 22* and then provide the chain operator 20 with web access to the central server 22. In this approach, the central server 22 then accesses and stores updated configuration information on the local server 16." Ex. 1004 ¶ 75 (emphasis added). We read this statement from Woycik as teaching not only that its administrative tool is located on the web server, but also that it is located on the web server instead of being on the local server. Either understanding meets the limitation.

For at least these reasons, the preponderance of the evidence supports Petitioner's contentions that Woycik teaches "a web server including POS builder software installed thereon."

b. one or more POS terminals generated by said POS builder software and said one or more POS terminals configured to be accessible at one or more terminal devices

The limitation noted above recites both "POS terminals" and "terminal devices." Petitioner identifies Woycik's kiosk 16/82 as the "terminal devices" and explains that those terminal devices display "POS terminals." Pet. 19–22; *see also* Pet. Reply 9–10 (reiterating same). Petitioner provides an annotated version of Woycik's Figure 1 illustrating those contentions (Pet. 21; Pet. Reply 10), which is reproduced below.

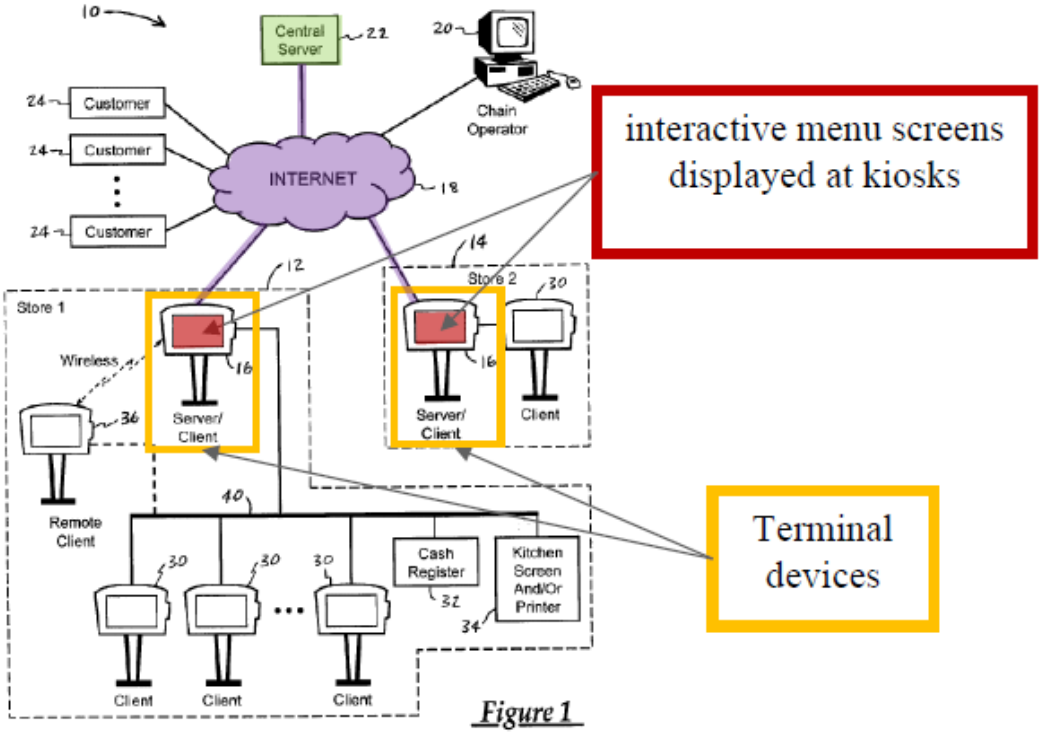

Figure 1

The figure reproduced above is Woycik's Figure 1, which is a schematic illustration of a "self-service ordering system" (Ex. 1004 ¶ 31), along with Petitioner's annotations denoting "terminal devices" and "interactive menu screens displayed at kiosks" (POS terminals) (Pet. 21; Pet. Reply 10).

Petitioner's contentions are undisputed. The preponderance of the evidence supports Petitioner's undisputed contentions regarding Woycik's teaching of "one or more POS terminals generated by said POS builder software and said one or more POS terminals configured to be accessible at one or more terminal devices," as those undisputed contentions are consistent with the disclosure of Woycik discussed above.

c. said POS terminals configured to accept POS transactions and collect corresponding transaction data

Petitioner contends that "Woycik discloses kiosk 16/82 'runs a self-order application' that 'provides a first user interface including a set of interactive menu screens having buttons that allow the customer to select

and customize products for the order'" and that "'can also accept payment at the kiosk.'" Pet. 22–23 (citing Ex. 1004 ¶¶ 12, 16, 92). Petitioner further contends that "[t]he self-order application on kiosk 16/82 collects corresponding transaction data to transmit to the central server." *Id.* at 24 (citing Ex. 1004 ¶¶ 58, 76, 128, 141, Claims 38, 39, Fig. 28).

Petitioner's contentions are undisputed. The preponderance of the evidence supports Petitioner's undisputed contentions regarding Woycik's teaching of its "POS terminals configured to accept POS transactions and collect corresponding transaction data," as those undisputed contentions are consistent with the disclosure of Woycik.

d. a POS builder interface configured to be accessible via network communication with said web server over a communications network

Petitioner contends that "Woycik discloses the 'administrative tool' is 'loaded on the central server 22,' and chain operator 20 is provided 'web access to the central server 22' via Internet 18." Pet. 25 (citing Ex. 1004 ¶¶ 75, 81, Fig. 1). Petitioner contends that Woycik teaches the limitation noted above because "*Woycik* discloses a POS builder interface (e.g., the administrative tool's user interface) configured to be accessible via network communication (e.g., via web access over the Internet) with said web server (e.g., central server 22/84) over a communications network (e.g., the Internet)." *Id.* at 27 (citing Ex. 1002 ¶¶ 61–65). We specifically note Petitioner's contentions regarding Woycik teaching the Internet for the communications network, as it relates to Patent Owner's dispute regarding the preamble discussed above.

Patent Owner purports to dispute Petitioner's contentions on this limitation, but does so by attempting to confuse the issue. *See* PO Resp. 27

("The Petition itself illustrates 'POS builder software' co-located with the 'Web server,' not communicating over a communications network"); *see also* Pet. Reply 13–14 (noting Patent Owner's mischaracterization of the claim). As seen above, and as Petitioner notes (Pet. Reply 14), claim 1 requires "a web server including POS builder software installed thereon." The limitation noted above relates to the "POS builder interface . . . be[ing] accessible via network communication with said web server."

As Petitioner notes, the actual basis for its challenge is not disputed. *See* Pet. Reply 13–14. The preponderance of the evidence supports Petitioner's undisputed contentions regarding Woycik's teaching of its "POS terminals configured to accept POS transactions and collect corresponding transaction data," as those undisputed contentions are consistent with the disclosure of Woycik.

e. wherein said POS builder interface is configured to be utilized to access said POS builder software for programmatically creating or modifying said one or more POS terminals in real time over the communications network

Petitioner contends that Woycik's "POS builder interface (e.g., the administrative tool's user interface)" is "configured to access said POS builder software (e.g., the administrative tool) for programmatically creating or modifying said one or more POS terminals (e.g., the self-order application and/or its interactive menu screens) in real time over the communications network (e.g., Internet)." Pet. 28. (citing Ex. 1002 ¶¶ 66–69). We again note Petitioner's contentions regarding Woycik teaching the Internet for the communications network, as it relates to Patent Owner's dispute regarding the preamble discussed above.

Petitioner explains that Woycik's

> Menu and item changes are based on selections at the administrative tool user interface such that "knowledge of the underlying code" is not required. *See id.*, [0095], [0080], [0100]. Configuration changes (e.g., menu and item changes) made over the Internet with the administrative tool at central server 22 are saved to the central server, then pushed to kiosks at local stores. *Id.*, [0115], [0076], [0122]. The central server can "automatically send the changes to the local server" via Internet 18. *Id.*; *see also* [0071], [0072], [0115]. *Woycik* thus discloses and suggests programmatically creating or modifying POS terminals in real time. EX1002, ¶68.

Id. For example, like the '012 patent and as noted by Petitioner, the real-time aspect is accomplished by the store owner being able to implement the changes without the need of a skilled programmer.

These contentions are undisputed. The preponderance of the evidence supports Petitioner's undisputed contentions regarding Woycik's teaching of its "POS builder interface [being] configured to be utilized to access said POS builder software for programmatically creating or modifying said one or more POS terminals in real time over the communications network," as those undisputed contentions are consistent with the disclosure of Woycik.

f. wherein said POS builder software is configured to interact with said one or more POS terminals over the communications network in order for the web-based point of sale (POS) builder system to perform functions in accordance with instructions sent from the POS builder interface

Petitioner contends that Woycik's "POS builder software (e.g., the administrative tool) on central server 22/84" is "configured to interact with said POS terminals (e.g., the self-order application and/or its interactive menu screens) over the communications network (e.g., Internet) for the POS builder system to perform functions in accordance with instructions sent

from the POS builder interface (e.g., instructions for menu and item changes)." Pet. 28 (citing Ex. 1002 ¶¶ 70–72). We again specifically note Petitioner's contentions regarding Woycik teaching the Internet for the communications network, as it relates to Patent Owner's dispute regarding the preamble discussed above.

Petitioner explains that Woycik's "web-based administrative tool installed on the central server provides updates via the Internet to the self-order application and its interactive menu screens on kiosk 16/82." Pet. 29 (citing Ex. 1004 ¶¶ 71, 76). Petitioner additionally explains that Woycik's "central (remote) server can also be used to install a new kiosk or restore an existing kiosk via a 'web installation service' that 'loads all necessary files onto the kiosk, including any software, database, menu, configuration files and media necessary for use.'" *Id.* (citing Ex. 1004 ¶ 124, Fig. 27).

Petitioner notes, for example, Woycik's discussion in paragraph 122 (Pet. 29), which explains that "a franchiser can create a new item or modify an existing item . . . and save it to the remote server," which "can be done, for example, by using the administrative tool on the remote server to configure the menus and items locally stored there."

These contentions are undisputed. The preponderance of the evidence supports Petitioner's undisputed contentions regarding Woycik's teaching of its "POS builder software [being] configured to interact with said one or more POS terminals over the communications network in order for the web-based point of sale (POS) builder system to perform functions in accordance with instructions sent from the POS builder interface," as those undisputed contentions are consistent with the disclosure of Woycik.

g. wherein said POS transactions and corresponding transaction data from said one or more POS terminals are configured to be transmitted to said web server via the communications network

Petitioner contends that "*Woycik* discloses that POS transactions and corresponding transaction data from the POS terminals (e.g., the self-order application and/or its interactive menu screens) at terminal devices (e.g., kiosks 16/82) are transmitted to the central (web) server via the Internet." Pet. 30–31. Petitioner contends that Woycik's "central server stores transaction data from the kiosks." *Id.* at 31. Petitioner cites paragraph 128 of Woycik, for example, to support its contentions, which explains that "the remote server[s] . . . provide a central data repository for multiple local servers and provide a reporting module." Woycik explains that "[t]he local server connects to the remote server periodically and stores the customer and order data in the centralized data repository." Ex. 1004 ¶ 128.

These contentions are undisputed. The preponderance of the evidence supports Petitioner's undisputed contentions regarding Woycik's teaching that its "POS transactions and corresponding transaction data from said one or more POS terminals are configured to be transmitted to said web server via the communications network," as those undisputed contentions are consistent with the disclosure of Woycik.

h. wherein each POS transaction is correlated with corresponding transaction data occurring at said one or more POS terminals

Referencing its contentions regarding the limitation discussed immediately above, Petitioner contends that

> *Woycik* discloses the centralized data repository at central server 22/84 "stores local transaction data from kiosks as well as customer data for use with customer recognition and recommendations." EX1004, [0128]. "For this purpose, the system tracks customer orders and stores them on the server," such that "the prior orders to be accessed from the central

> server 22 regardless of the particular store at which the customer is located." *Id.*, [0089]; *see also* [0030], [0097].

Pet. 31. Petitioner's contentions are consistent with the cited portions of Woycik.

Again, Patent Owner does not dispute these contentions. The preponderance of the evidence supports Petitioner's undisputed contentions regarding Woycik's teaching that "each POS transaction is correlated with corresponding transaction data occurring at said one or more POS terminals," as those undisputed contentions are consistent with the disclosure of Woycik.

For the reasons set forth above, we agree that Woycik teaches each structural element of claim 1, as well as the features recited in claim 14. As noted above, Patent Owner does not draw a distinction between the requirements of claims 1 and 14. And, as explained above, Patent Owner's evidence of non-obviousness is not compelling and is outweighed by the case of obviousness.

3. Claims 3 and 15

Claim 3 depends from claim 1 and recites that "said one or more POS terminals are tested iteratively in real time while said one or more POS terminals are operable to accept POS transactions." Ex. 1001, 6:60–63.

The '012 patent explains that "in the prior art, a specialized programmer had to design the layout and data for these POS touch keys" and, "[t]ypically, the programmer is located remotely from the store or business." *Id.* at 3:2–5. "In addition, the programmer would need to iterate several passes of the touch screen design and allow the store operator to test the screens," but "[w]ith this invention, the store operator will be able to build his POS screens online over the Internet." *Id.* at 3:7–11.

In the '012 patent, the POS builder software enables "[t]he store operator, who does not have to be technically trained, [to] be able to edit and test his screens until he is satisfied with the end results." Ex. 1001, 3:14–16. With respect to the particular features recited in claim 3, the '012 patent explains that "[t]he testing of said POS screens can be done iteratively by the store operator in real time while said POS terminals are simultaneously in use during store and business operation hours or after store hours." *Id.* at 3:16–20. These "backoffice changes[,] which include screen changes, price changes, employee validation changes are submitted to a batch bucket or queue" and "have to be submitted for final posting at a scheduled time." *Id.* at 3:24–28. "The time schedule for uploading or posting these screen changes and/or new data can be specified as follows": (1) "the changes can take place after the present transactions are completed" or (2) "the changes can take place at the end of the business day, during the night, at the start of the next day or at the next application restart," but "[t]ypically, screen changes will take place at the next application start at the beginning of a business day." *Id.* at 3:30–38.

"Previously, the store operator would avoid updating screens, since it involved the time and expense of working with programmers offline." Ex. 1001, 3:49–51. With the POS builder software, however, "the store operator will be able to edit, change and test the screens within minutes in real time" and "can iterate these changes instantly until he gets the desired screen appearance." *Id.* at 3:44–46.

Referencing its earlier contentions regarding "Woycik disclos[ing] POS builder software (e.g., administrative tool) that allows an administrator to create and edit POS terminals," Petitioner contends that "[a person of ordinary skill in the art] would understand *Woycik* discloses and suggests

iterative testing of POS terminals in real time using the administrative tool." Pet. 33–34.

Petitioner provides a first example, where "*Woycik* discloses '[u]pon exiting the administrative tool, it prompts the 'administrator to save the changes or discard changes.'" Pet. 34 (citing Ex. 1004 ¶¶ 115, 121)). Petitioner reasons that "[a person of ordinary skill in the art] would understand reviewing changes to either save or discard them discloses and suggests testing POS screens iteratively and in real time." *Id.* (citing Ex. 1002 ¶ 82)).

Petitioner provides a second example, contending that Woycik's "'FIG. 12 illustrates a method of editing menus using the menu editor,' which involves an iterative process to view menu and item screens and/or make menu and item changes in real time before saving changes to the remote server." Pet. 34 (citing Ex. 1004 ¶ 42). Petitioner reasons that "this iterative process discloses and suggests testing POS terminals iteratively in real time." *Id.* at 35 (citing Ex. 1002 ¶ 83).

Petitioner provides a third example, where "*Woycik* discloses the remote server can "automatically send the changes" or periodically send changes "by programming of the clients to periodically check for new configurations, such as by using predefined time intervals and/or during idle time when the kiosk is not in use.'" Pet. 35 (citing Ex. 1004 ¶ 115). Petitioner additionally cites to paragraphs 93, 117, and 120–122 of Woycik. *Id.* Woycik's paragraph 121, for example, explains that "[t]he web enabled administrative tool also enables store owners to update multiple servers from a single location, for example, by logging in and updating the local servers either one at a time or as a group." Petitioner contends that "[c]ontrolling POS terminal updates by kiosk, group, during idle time, or at specific times

discloses and suggests testing POS terminals iteratively in real time while POS terminals are simultaneously used," such as "a subset of kiosks (POS devices) or stores . . . receiv[ing] and test[ing] updated POS terminals while other POS terminals at terminal devices or stores continue to operate." *Id.* at 35–36 (citing Ex. 1002 ¶ 83).

Patent Owner responds: (1) "*Woycik* does not discuss 'testing'" (PO Resp. 29 (citing Ex. 2015 ¶¶ 79–83)); (2) Woycik's "administrative tool does not provide for testing (or updating) in real time, and is also silent regarding operation while accepting POS transactions." (*id.* at 30 (citing Ex. 1005 ¶ 73; Ex. 2015 ¶ 81)); and (3) Woycik's "updating process is not iterative for the kiosks" (*id.* at 30).

Although we agree with Patent Owner that Woycik does not use the same terminology as the claim (i.e., "testing"), we agree with Petitioner that Woycik teaches "testing" its POS screens. Consistent with the disclosure of the '012 patent, the recited "testing" is "[t]he store operator['s] . . . ab[ility] to edit and test his screens until he is satisfied with the end results." Ex. 1001, 3:15–16. That is, it is the ability of the store owner to implement various changes iteratively until a desired end result is achieved. The real-time aspect is accomplished by the store owner being able to implement the changes without the need of a skilled programmer. Woycik accomplishes this in the various examples provided by Petitioner. For example, Woycik explains that "[t]he administrative tool saves all changes to the server after the administrator has made all desired changes to the customer interface using the administrative tool" and "[u]pon exiting the administrative tool, it prompts the administrator to save the changes or discard changes." Ex. 1004 ¶ 115.

As discussed in Petitioner's first and second examples, Woycik teaches the iterative real-time aspect of the claim because it is the administrator that iteratively makes the changes, rather than waiting for a programmer, just as in the '012 patent. And just like the '012 patent, those changes can be made "while said one or more POS terminals are operable to accept POS transactions" as recited in claim 3 because they are not made on the terminal devices, themselves, but rather done remotely and subsequently provided to the terminals. *See* Pet. Reply 15.

We agree with Petitioner that it is unclear what else Patent Owner believes is missing from Woycik. *See* Pet. Reply 15. Patent Owner responds that "'terminal devices' are nowhere mentioned with reference to Claim 3." PO Sur-Reply 12. But this does not identify any particular teaching missing from Woycik. And Patent Owner fails to respond with any particular missing teachings from Woycik, asserting, instead, that "[t]he alleged lack of disclosure regarding 'what else testing iteratively must entail' is irrelevant" because "Petitioner has not alleged Claim 3 is unclear, . . . has declined to request claim construction of these terms," and "written description and enablement are not at issue." *Id.* at 12 n.6.

As noted above, the claim recites that "said one or more POS terminals are tested iteratively in real time while said one or more POS terminals are operable to accept POS transactions." The disclosure of the '012 patent discussed above refers to POS screens as the visual display created by the POS builder software, while the claim uses the term "POS terminal" for those POS screens. *See, e.g.*, Ex. 1001, 3:10–16. And the disclosure of the '012 patent refers to POS terminals as the physical terminals, while the "POS devices" referenced in the claim (see claim 1) are the POS screens that are displayed on the POS devices. *Id.* at 3:55–56. That

is, the '012 patent's disclosure relative to the recited testing concerns its POS terminals ("POS terminal devices" in the claims) operating with POS screens ("POS terminals" in the claims) using a current version of programming created by the POS builder software. The POS screens ("POS terminals" in the claims) can be modified/tested by creating a new version of programming created by the POS builder software that has not yet been deployed to the POS terminals ("POS terminal devices" in the claims) operating with POS screens ("POS terminals" in the claims) using a current version of programming. This understanding of the claim is also taught by Petitioner's mappings to Woycik's teachings above because Woycik provides for new versions of its screens to be tested while the current versions are in use.

Based on the record before us, the preponderance of the evidence supports Petitioner's contentions that Woycik teaches the features recited in claims 3 and 15.

4. Claim 4

Claim 4 depends from claim 1 and recites that "at least one of said POS builder interface and said one or more POS terminals are configured to be implemented without specialized hardware or software at a given terminal device." Ex. 1001, 6:63–67.

Petitioner contends that Woycik teaches both options recited in claim 4. For example, Petitioner contends that "[a person of ordinary skill in the art] would understand *Woycik* discloses kiosk 16/82 does not require specialized hardware or software, e.g., to run the self-order application." Pet. 36 (citing Ex. 1002 ¶ 86). Petitioner also contends that "*Woycik* discloses chain operator 20 has 'web access to the central server 22' and the 'administrative tool loaded on the central server 22' via Internet 18." *Id.*

(citing, e.g., Ex. 1004 ¶ 75). Petitioner explains that "[b]ecause the POS builder interface (e.g., the administrative tool's user interface) accesses the POS builder software (e.g., the administrative tool) that runs on central server 22/84, the POS builder interface does not require specialized hardware or software at the terminal device." *Id.*

In addition to Woycik teaching both options, Petitioner additionally contends that even if "Woycik does not disclose this claim, a [person of ordinary skill in the art] would have been motivated to use general purpose hardware and software (as opposed to specialized hardware or software) to reduce system cost, complexity, and maintenance." Pet. 37 (citing Ex. 1002 ¶ 88).

Patent Owner contends that "*Woycik* nowhere states that its terminal devices are implemented without specialized hardware or software." PO Resp. 31 (citing Ex. 2015 ¶ 85).

Initially, we note that other than the general allegation above, Patent Owner does not dispute, or even address, Petitioner's contentions regarding Woycik teaching that its "administrative tool's user interface (POS builder interface), is used to access the administrative tool (POS builder software) running on central server 22/84, and the POS builder interface does not require specialized hardware or software at the terminal device." Pet. Reply 16 (citing Pet. 36 and explaining that Patent Owner ignores this portion of the challenge). We are persuaded by Petitioner's contentions on this teaching from Woycik for the reasons set forth in the Petition.

Patent Owner also does not dispute, or even address, Petitioner's rationale to modify Woycik's teachings. *See* PO Resp. 31. Petitioner's undisputed rationale is persuasive. Petitioner's reasoning is supported by unrebutted testimony from Mr. Gray. *See* Pet. 37 (citing Ex. 1002 ¶ 88).

Mr. Gray explains, for example, that "[t]he use of general-purpose hardware and software is of particular value in a POS context because the loss of a terminal device or other component could result in a direct loss of sales and customer goodwill." Ex. 1002 ¶ 88. Mr. Gray further explains that "[i]f the POS system requires specialized hardware or software, replacements or repairs depend on a specialized supply chain that may have limited replacement parts and/or not be available after-hours or on weekends." *Id.* And "specialized hardware and software means limited supplies and higher prices." *Id.* "If a store owner can purchase any commodity PC or Mac for the POS terminal device, the store owner can price shop at retailers, warehouse clubs, and online." *Id.*

For at least these reasons, the preponderance of the evidence before us supports Petitioner's contentions regarding claim 4.

We are also persuaded by Petitioner's contentions that "*Woycik* discloses kiosk 16/82 [(POS terminal device)] does not require specialized hardware or software, e.g., to run the self-order application [(POS terminal)]." Pet. 36. With respect to this contention, Patent Owner responds that

> *Woycik* describes that its self-order applications require programming to implement at the terminal device. EX2015, ¶85. Specifically, *Woycik* describes that the "user interface application [is] written using a multimedia authoring program," which is "preferably Macromedia FlashTM." EX1005, [0073], [0078], FIG. 3 ("Self-Order Application (Flash)"); EX2015, ¶85. Software on each kiosk 80 is "a combination of a client computer program 92 (e.g., written in .NET) and user interface content 90." EX1005, [0078]; EX2015, ¶85.

PO Resp. 31. But as Petitioner explains, "Woycik's administrative tool's user interface (POS builder interface), is used to access the administrative

tool (POS builder software) running on central server 22/84, and the POS builder interface does not require specialized hardware or software at the terminal device." Pet. Reply 16.

We disagree with Patent Owner that the programming it identifies in Woycik is "specialized." Rather, we agree with Petitioner that Woycik's "disclosure is similar to the '012 Patent, in which 'java POS' applications are installed on POS devices, each of which comprises 'personal computer hardware and software.'" Pet. Reply 16 (citing Ex. 1001, 3:55–56, Fig. 3). And as Petitioner also notes, Patent Owner offers no explanation to support its allegation that "*Woycik*'s use of common software (.NET or Macromedia Flash) qualifies as specialized hardware or software, but Java applications do not." *Id.*

Accordingly, this additional basis for the challenge is also supported by the preponderance of the evidence before us.

And, again, to the extent any modification is necessary to Woycik's teachings, the preponderance of the evidence weighs heavily in favor of Petitioner, and significantly outweighs the weak evidence of non-obviousness discussed above.

5. Claim 5

Claim 5 depends from claim 1, and further recites that "said web server includes a standard internet web server implemented with standard web server hardware and software, using one or more relational databases, wherein software for said POS builder interface resides in and is executed from said web server." Ex. 1001, 7:1–6.

Patent Owner contends that "*Woycik* does not disclose 'a POS builder interface configured to be accessible via network communication with said web server over a communications network'" as recited in claim 1, and,

"[f]or similar reasons, *Woycik* also cannot teach 'wherein software for said POS builder interface resides in and is executed from said web server POS builder interface.'" PO Resp. 32.

As explained above, Petitioner's contentions regarding claim 1 are supported by the preponderance of the evidence before us. There is no dispute regarding Petitioner's contentions addressing the additional features recited in claim 5. We adopt Petitioner's contentions and supporting evidence related to claim 5, which are undisputed and also supported by the preponderance of the evidence before us.[9] *See* Pet. 37–38.

6. Claims 6, 7, 10–13, and 18–20[10]

Claim 6 depends from claim 1, and recites that "said POS builder software is configured to provide instructions to add new POS terminals." Ex. 1001, 7:7–9. Claim 7 depends from claim 1, and recites that "said POS builder software is configured to provide instructions to modify existing POS terminals." *Id.* at 7:10–12. Claim 10 depends from claim 1, and recites that "a number, shape and arrangement of selection keys or buttons for said one or more POS terminals are specified from the POS builder interface." *Id.* at 20–23. Claim 11 depends from claim 10, claim 12 depends from claim 11, and claim 13 depends from claim 12, and each recites further details about items associated with the keys or buttons recited in claim 10. *Id.* at 7:24–32.

[9] Patent Owner only asserts its evidence of secondary considerations as relevant to claims 1–4.
[10] Claims 18 and 19 are method claims corresponding to claims 10 and 11, respectively. Claim 20 is a method claim corresponding to claims 12 and 13.

Patent Owner's dispute concerning claims 6, 7, and 10–13 relates to whether Woycik's administrative tool is located at its central server. Those contentions are addressed above with respect to claim 1. Patent Owner does not dispute Petitioner's contentions regarding the additional features recited in claims 6, 7, and 10–13 in any meaningful way other than the local/central server dispute discussed above.

We adopt Petitioner's contentions and supporting evidence related to claims 6, 7, 10–13, and 18–20, which, as noted above, are undisputed and supported by the preponderance of the evidence before us.[11] *See* Pet. 38–40, 42–46.

7. Claims 8 and 16

Claim 8 depends from claim 1, and further recites that "said one or more POS terminals are configured to be accessible by a web browser." Ex. 1001, 7:13–15.

Petitioner provides two separate bases for its challenge to claim 8: (1) Woycik teaches the features; and (2) Even if not expressly taught, it would have been obvious to include those features. Pet. 40.

Initially, as Petitioner notes, Patent Owner does not dispute, or even acknowledge, Petitioner's alternate basis for the challenge that "if *Woycik* does not disclose Claim 8, a [person of ordinary skill in the art] would have been motivated to provide such functionality to allow a manager to view the same interfaces customers see in-store when editing items and menus via the administrative tool." Pet. Reply 19 (citing Pet. 40); PO Resp. 36–38.

[11] Patent Owner only asserts its evidence of secondary considerations as relevant to claims 1–4.

Petitioner provides testimony from Mr. Gray supported by evidence that is unrebutted by Patent Owner. *See* Pet. 40 (citing Ex. 1002 ¶ 102). We adopt these unrebutted contentions and supporting evidence. The preponderance of the evidence before us supports Petitioner's challenge to claim 8 on this basis alone. And Patent Owner does not present any allegation that its evidence of non-obviousness discussed above is relevant to the additional features recited in claim 8 or 16. As explained above, even if relevant to claim 8 or 16, that evidence is outweighed by the unrebutted evidence of obviousness.

As for the additional basis for the challenge to claim 8, Petitioner explains that "*Woycik*'s POS terminals are thus accessible by a web browser because they are created/modified via the browser." Pet. Reply 19. We agree, and fail to see where Patent Owner meaningfully rebuts this contention. *See* PO Resp. 36–38; PO Sur-Reply 14–15. This additionally basis is also supported by the preponderance of the evidence because, as explained above, the administrative tool on the central server in Woycik is used to create its POS terminals.

For at least these reasons, Petitioner's contentions and supporting evidence related to claims 8 and 16 which, as noted above, are undisputed and supported by the preponderance of the evidence before us.

8. Claims 2, 9, and 17

Claims 2 and 9 depend from claim 1. Claim 17 depends from claim 14. Patent Owner does not specifically dispute Petitioner's contentions for these claims. We adopt Petitioner's arguments and evidence (Pet. 50–51, 56–57, 62–63), which are unrebutted. And Patent Owner does not present any allegation that its evidence of non-obviousness discussed above is relevant to the additional features recited in claim 9 or 17. As explained

above, even if relevant to claim 9 or 17, that evidence is outweighed by the unrebutted evidence of obviousness.

Absent any persuasive argument and evidence from Patent Owner, the preponderance of the evidence weighs heavily in favor of Petitioner.

F. Olson/Woycik Challenge

Petitioner asserts that claims 1–20 are unpatentable under 35 U.S.C. § 103 as obvious over Olson and Woycik. Pet. 47–68. Although claims 1–13 recite a system and claims 14–20 recite a method, the claims are similar in scope. For purposes of this proceeding, the claims are treated the same by both parties. *See* Pet. 67–68 (referring to the challenge of claims 1–13 for claims 14–20); PO Resp. 51 (referring to the response regarding claims 1–13 for claims 14–20). For simplicity, our discussion references the system claims, with the understanding that the discussion applies equally to the method claims.

1. Olson Prior Art Status

There is an initial dispute as to whether Olson qualifies as prior art. *See* PO Resp. 39–40; Pet. Reply 21–23; PO Sur-Reply 19–20. That dispute focuses on the exclusion of Olson as prior art as provided by 35 U.S.C. § 103(c)(1) ("Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the claimed invention was made, owned by the same person or subject to an obligation of assignment to the same person.").

The issue before us is whether "the subject matter [of Olson] and the claimed invention [of the '012 patent] were, at the time the claimed invention [of the '012 patent] was made, owned by the same person or

subject to an obligation of assignment to the same person." 35 U.S.C. § 103(c)(1).

Mr. Ackerman was the attorney responsible for prosecution of patent application serial number 11/710,722 (which corresponds to Olson, Ex. 1006) and U.S. Patent Application No. 12/012,666, which issued as U.S. Patent No. 9,400,640 on July 26, 2016 (the '640 patent; Ex. 1027, the parent filing for the '012 patent). *See* Ex. 2007.[12] Mr. Ackerman makes clear that Olson[13] was never assigned to anyone. *See* Ex. 2007 ¶ 17 ("The following patent applications were abandoned, and therefore did not issue as patents: Patent Application Nos. 11/710,722; 11/710,723; and 12/012,393. Thus, *I did not prepare assignment documents* or an Assignment Cover Sheet for any of these abandoned patent applications.") (emphasis added). This is an undisputed fact.

Page 268 of Exhibit 2024, which is a portion of an Information Disclosure Statement (IDS) filed with the United States Patent Office by Mr. Ackerman during prosecution of the application that resulted in the '640 patent, is incorrect. That IDS incorrectly states that patent application serial number 11/710,722 (which corresponds to Olson, Ex. 1006) was "assigned to the same assignee as the present invention." Ex. 2024, 268. The statement in the Patent Owner Response that "the subject matter of Olson

[12] Mr. Ackerman's declaration is silent as to whether he was also responsible for handling prosecution of the application that resulted in the '012 patent. And we note that, unlike the '640 patent, neither Mr. Ackerman, nor Saile Ackerman LLC, is listed on the face of the '012 patent as "Attorney, Agent, or Firm." *See* Ex. 1001, (74).

[13] We also refer to Exhibit 1006 as "the Olson reference" in this section, rather than simply "Olson" when appropriate to avoid confusion, as we also refer to the inventor Mr. Olson in this section.

and the claimed invention in the '012 patent were assigned to the same assignee" refers to that page of the IDS and is also incorrect. PO Resp. 40. This is an undisputed fact.

Accordingly, we are left with the issue of whether "the subject matter [of Olson] and the claimed invention [of the '012 patent] were, at the time the claimed invention [of the '012 patent] was made, . . . subject to an obligation of assignment to the same person." 35 U.S.C. § 103(c)(1).

We begin by discussing the allocation of the burdens of proof. "[T]here are two distinct burdens of proof: a burden of persuasion and a burden of production." *Dynamic Drinkware,* 800 F.3d at 1378 (citing *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1326-27 (Fed. Cir. 2008)). "The burden of persuasion 'is the ultimate burden assigned to a party who must prove something to a specified degree of certainty.'" *Id.* (quoting *Tech. Licensing*, 545 F.3d at 1326). "Failure to prove the matter as required by the applicable standard means the party with the burden of persuasion loses on that point." *Id.* at 1378–79 (quoting *Tech. Licensing*, 545 F.3d at 1327).

"A quite different burden is that of going forward with evidence—sometimes referred to as the burden of production—a shifting burden the allocation of which depends on where in the process of trial the issue arises." *Tech. Licensing*, 545 F.3d at 1327 (citations omitted). The burden of production may shift between the parties and may involve "producing additional evidence and presenting persuasive argument based on new evidence or evidence already of record." *Dynamic Drinkware*, 800 F.3d at 1379 (quoting *Tech. Licensing*, 545 F.3d at 1327). In *Dynamic Drinkware*, the Federal Circuit affirmed the Board's use of the burden shifting

framework in the analysis of a prior art reference relied upon in an anticipation challenge. *Id.*

Applying these principles to the instant case, in an *inter partes* review, the burden of persuasion is on Petitioner to prove "unpatentability by a preponderance of evidence," 35 U.S.C. § 316(e), and that burden never shifts to the Patent Owner. *See Dynamic Drinkware*, 800 F.3d at 1379 (explaining petitioner "had the burden of persuasion to prove unpatentability by a preponderance of the evidence, and this burden never shifted"). Petitioner also has the initial burden of production. *Id.* Petitioner satisfied its burden of production by arguing in its Petition that Olson was prior art under § 102(e) and, in combination with one or more other prior art references, would have rendered claims 1–20 obvious at the time the invention was made under § 103(a). Pet. 47–68.

The burden of production then shifted to Patent Owner to argue or produce evidence that Olson was not prior art. Patent Owner responded by arguing in its Patent Owner Response that Olson is disqualified prior art to the claims at issue because

> The subject matter in *Olson* and the claimed invention in the '012 Patent were, at the time the claimed invention was made, subject to an obligation of assignment to the same person. Indeed, statements in the file history of the '640 Patent, from which the '012 Patent claims priority, confirms the subject matter of *Olson* and the claimed invention in the '012 Patent were assigned to the same assignee.

PO Resp. 40. Patent Owner reproduces page 268 of Exhibit 2024 to support its position, which, as discussed above, is a portion of an IDS that incorrectly states patent application serial number 11/710,722 (which corresponds to Olson, Ex. 1006) was "assigned to the same assignee as the present invention." Ex. 2024, 268. This, by itself, provides no evidence of

any *obligation* of assignment. And Patent Owner provides no explanation as to how this misrepresentation to the United States Patent Office evidences an obligation of assignment. In fact, Patent Owner never even addresses the fact that the statement in the IDS is a misrepresentation.

The Patent Owner Response also includes a generic citation to Exhibits 2005, 2006, and 2007 (which are declarations of Wayne Baratta, Quentin Olson, and Stephen Ackerman, respectively) with no discussion of those declarations whatsoever. The Patent Owner Response then simply concludes: "Thus, Ground 2 fails at least because *Olson* is not prior art to the '012 Patent." PO Resp. 40.

Mr. Baratta and Mr. Olson are the inventors listed on the face of the '012 patent. Ex. 1001, (72). Mr. Olson is the sole inventor listed on the face of the Olson reference. Ex. 1006, (76). As noted above, Mr. Ackerman was the attorney responsible for prosecution of the Olson reference and the '640 patent. *See* Ex. 2007.

Although Patent Owner made no effort to discuss the declarations (Exs. 2005–2007) that provide the only potential evidence of an obligation of assignment, we have reviewed those declarations in their entirety. Mr. Baratta states that "[p]rior to February 26, 2007, Mr. Olson and I agreed to an obligation to assign any patents that could issue from the above-listed patent applications to the same person or entity."[14] Ex. 2005 ¶ 3. Mr. Baratta provides no explanation as to what that "obligation" entailed. Mr. Olson's statements are identical in this respect. Ex. 2006 ¶ 3. Mr.

[14] There are no "above-listed patent applications." We assume Mr. Baratta refers to the table including patent application serial number 11/710,722 (the Olson reference) and patent application serial number 12/012,666 (the '640 patent).

Ackerman provides a similar statement in his declaration that "[a]t the time of filing each of the patent applications described in paragraphs above, it was my understanding that any resulting issued patent from these patent applications would be assigned to the same person or entity." Ex. 2007 ¶ 14. Like Mr. Baratta, Mr. Ackerman provides no explanation as to what any obligation of assignment entailed. In fact, Mr. Ackerman did not even reference an *obligation* of assignment, just that it was his "understanding that any resulting issued patent from these patent applications would be assigned to the same person or entity." *Id.*

Petitioner responds with argument and evidence rebutting the purported obligation to assign the Olson reference. *See* Pet. Reply 21–23. Petitioner contends that there is no documentary evidence supporting any obligation of assignment. Pet. Reply 22. Petitioner also notes Mr. Olson's deposition testimony that no formal agreement existed with respect to assigning at least the Olson reference. *Id.* (citing Ex. 1038, 10:3–17; 27:22–31:1, 31:24–35:6, 36:5–25, 47:1–48:8, 57:5–16). During his deposition, Mr. Olson testified, for example, that any agreement "was kind of a handshake relationship" and "[n]othing was formalized." Ex. 1038, 10:7–8. And when Mr. Olson was asked if the alleged agreement "was . . . a moral obligation, or did you feel like you were bound to assign any rights?" (*id.* at 57:11–13) he responded that "it was more of a moral obligation" (*id.* at 57:15–16).

Patent Owner offers nothing in response to Petitioner's rebuttal argument and evidence. *See* PO Sur-Reply 19–20 (reiterating contentions provided in Patent Owner Response).

The preponderance of the evidence weighs in favor of Petitioner. We credit the testimony of Mr. Olson. He is the sole inventor of U.S. Patent Application Serial Number 11/710,722 (Olson, Ex. 1006). We have no

reason to question the accuracy of Mr. Olson's testimony. And Patent Owner does not dispute Mr. Olson's testimony. As explained above, Mr. Olson testified that any agreement "was kind of a handshake relationship . . . [n]othing was formalized" (Ex. 1038, 10:7–8) and "more of a moral obligation" (*id.* at 57:15–16).

Indeed, as noted above, Patent Owner does not even discuss any of the testimony from Mr. Ackerman, Mr. Olson, or Mr. Baratta. *See* PO Resp. 40 (simply providing a general citation to Exs. 2005–2007 without any discussion of the testimony contained therein or even a cite to a specific portion of that testimony). Patent Owner's Sur-Reply does no better, and simply provides a conclusory statement that "the testimony of Mr. Olson and Mr. Ackerman, the prosecuting attorney, in this proceeding confirm that both *Olson* and the claimed invention of the '012 Patent were subject to an obligation to assign to the same person." PO Sur-Reply 19.

Mr. Ackerman's testimony is not credible. For example, when asked during his deposition whether "in May of 2007, when you signed the '722 IDS, again, your only understanding about the duty to assign or obligation to assign was from one or two or three conversations with Mr. Baratta; is that correct?" (Ex. 1037, 105:8–12), Mr. Ackerman responded that was correct (*id.* at 105:25–106:5). There was no actual assignment, nor any document or correspondence evidencing an obligation of assignment. And Mr. Ackerman did not even discuss the issue with the sole inventor of the Olson reference, Mr. Olson. Instead, Mr. Ackerman's sole basis for his "understanding" of an obligation of assignment is conversations with Mr. Baratta. Yet, Mr. Ackerman represented to the United States Patent Office that the Olson reference had been assigned. And Mr. Ackerman made no attempt to notify the United States Patent Office of his error. *See* Ex. 1037, 87:20–22; *see*

also MPEP § 717.02(a)(I)(B) ("[T]he representative(s) of record have the best knowledge of the ownership of their application(s) and reference(s), and their statement of such is sufficient because of their *paramount obligation of candor and good faith* to the USPTO.") (emphasis added).

But even if we found his testimony credible, it provides little reason to believe that any enforceable obligation of assignment would exist. *See* MPEP § 717.02(a)(I)(B) ("A moral or unenforceable obligation would not provide the basis for common ownership."); *see also Hyatt v. Dudas*, 492 F.3d 1365, 1369 n.2 (Fed. Cir. 2007) ("Although the MPEP 'does not have the force of law,' *Molins PLC v. Textron, Inc.,* 48 F.3d 1172, 1180 n.10 (Fed.Cir.1995), the MPEP 'is made available to the public and . . . describe[s] procedures on which the public can rely,' *Patlex Corp. v. Mossinghoff,* 758 F.2d 594, 606 (Fed. Cir. 1985).").

Simply stated, Patent Owner provides no basis to believe an *enforceable* obligation of assignment existed at the time the '012 invention was made. And Patent Owner does not assert, nor do we have any reason to believe, that this is a situation where terms of employment may dictate such an obligation. We are left with undisputed testimony from the sole inventor of the Olson reference, Mr. Olson, that no enforceable obligation of assignment existed.

For at least these reasons, Olson qualifies as prior art against the '012 patent in this proceeding.

2. Olson

Olson "relates to the managing of the points of sale (POS) with Web-based back-office systems." Ex. 1006 ¶ 4. Figure 1 of Olson is reproduced below.

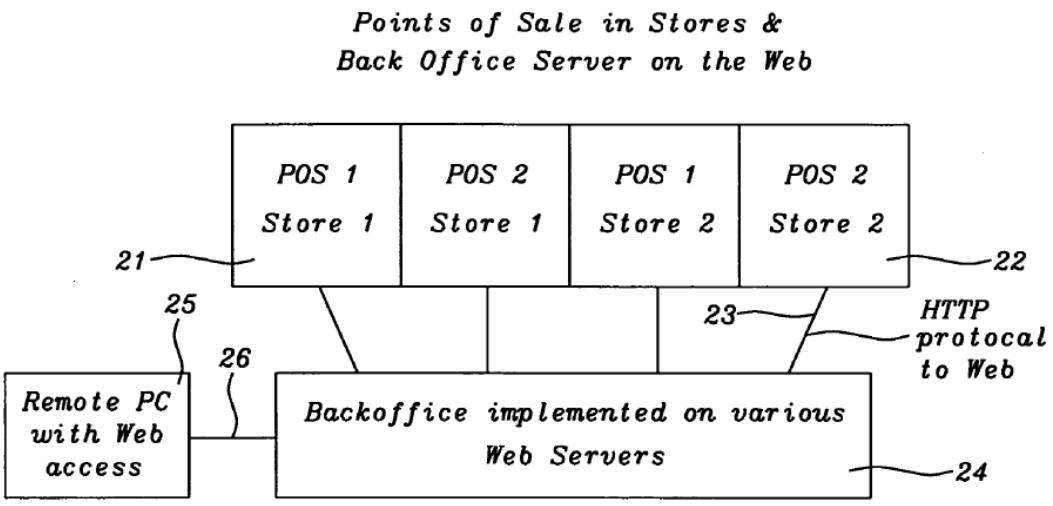

FIG. 1

"F[igure] 1 shows a high level diagram of this invention" (*id.* ¶ 13), which includes a web-based back-office system (*id.* ¶ 4). Olson explains that "point of sale (POS) terminal such as POS 21 represents a single cash register in a store, retail location, or business location" and "POS 21 is in STORE 1 and POS 2 (22) is in store 2." *Id.* ¶ 17. According to Olson, "[e]ach POS includes personal computer hardware and software." *Id.*

"Each POS normally operates with a hardware/software connection 23 to the Internet or Web," but "if the web goes down, the POS terminal continues to operate" because "[t]here is a loose coupling of the POS to the back office (BO)." Ex. 1006 ¶ 17. Olson explains that "[t]he POS to BO connection is not required for the basic business functions of the POS" because "[a]ll transaction data is stored in a relational database on the hard drive in the POS." *Id.*

Figure 4 of Olson "is a more detailed diagram of a main embodiment" (Ex. 1006 ¶ 16), and is reproduced below.

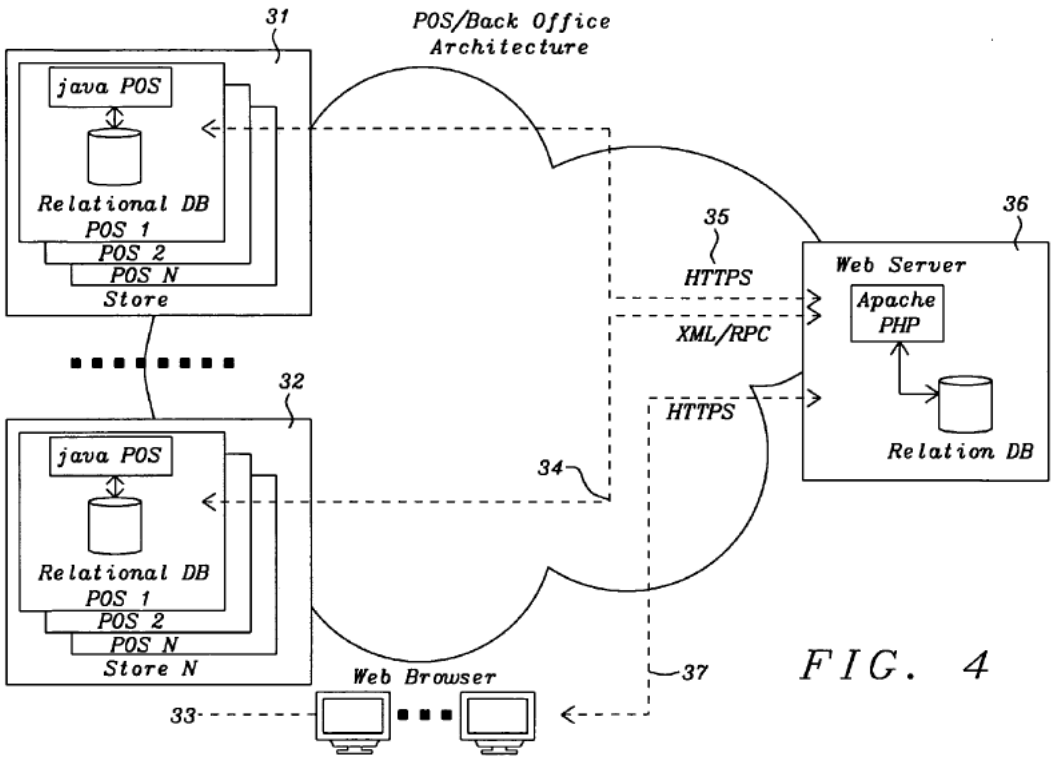

FIG. 4

Figure 4 is a schematic illustration of Olson's point of sale and back-office system. Olson explains that "[t]he POS, BO, and Web Browsers all communicate via the Web. 34." Ex. 1006 ¶ 26.

Olson explains that "[t]he key advantage[] of this point of sale system with a web-based back-office system . . . is a lower cost associated with projects developed with the technology of this invention due to the flexibility of easy design changes and well-understood software." Ex. 1006 ¶ 27. According to Olson, "[t]here is less training required for programmers and system testers" and the system "allows remote monitoring of both the POS and back-office systems from anywhere via the web. There is minimal time required for POS installation, since POS setup is as basic as a home PC setup." *Id.* "Another advantage is that the back-office system can be provided as . . . Software as a Service (SAAS)[, which] is a software

distribution model in which applications are hosted by a vendor or service provider and made available to customers over a network, typically the Internet." *Id.*

3. Claims 1 and 14

Petitioner contends that "*Woycik* discloses point of sale builder software" (Pet. 53), which as noted above, is essentially undisputed. For the reasons set forth above, we agree with Petitioner that Woycik teaches point of sale builder software, and that Woycik teaches that software on a web server.

Petitioner contends that "*Olson* discloses a 'point of sale system with a web-based back-office system.'" Pet. 50. And, as explained below, Petitioner's contentions regarding Olson are essentially undisputed, too. Indeed, the web-based back-office system of Olson is identical to that of the '012 patent. *Compare* Ex. 1006, Fig. 4 *with* Ex. 1001, Fig. 3.

We adopt Petitioner's undisputed arguments and evidence regarding the teachings of Woycik and Olson. *See* Pet. 47–60, 67; *see also* Pet. Reply 25 (noting that Patent Owner fails to identify missing limitations in the asserted references); PO Sur-Reply 20–21 (providing no further response as to any missing limitations in the asserted references beyond what we have already addressed in the Woycik challenge).

The disputed issue is ultimately whether it would have been obvious to use Woycik's point of sale builder software in Olson's web based back-office system. The proposed modification is "install[ing] *Woycik's* web-based administrative tool and its features on the web server of *Olson's* web-based POS system." Pet. 48. That is, the modification simply involves having different software (from Woycik) on Olson's system. Petitioner provides a number of reasons why such a modification would have been

obvious. *See id.* at 48–50, 58–60. And there is no dispute that Olson already includes point of sale software. The proposed modification simply provides point of sale software that includes Woycik's administrative tool (i.e., builder) features that provide for easier customization of that point of sale software (i.e., elimination of the need for a skilled programmer).

Patent Owner responds: (1) Petitioner has failed to show a reasonable expectation of success (PO Resp. 44); (2) Olson and Woycik do not teach a point of sale builder software installed on the web server of a web based POS builder system (*id.* at 45–47); and (3) Olson and Woycik do not teach a point of sale builder interface accessible to a web server over a communications network (*id.* at 47–48).

We note that Patent Owner does not provide any meaningful rebuttal to Petitioner's rationale for the proposed modifications to Olson. We adopt Petitioner's arguments and evidence regarding the proposed modifications to Olson in view of Woycik. We address, specifically, Patent Owner's unpersuasive contentions below.

a. reasonable expectation of success

Patent Owner contends that "[n]either Petitioner nor Mr. Gray explain how the 'java POS' system of *Olson* can be modified with the Flash POS system of *Woycik*." PO Resp. 44. According to Patent Owner "both Petitioner and Mr. Gray fail to distinguish or note that each of the systems taught in *Olson* and *Woycik* have fundamentally different software platforms" or "explain how the systems and software platforms would be compatible or changed." *Id.*

Petitioner responds:

> Obviousness does not require implementation-level details for how the software in each reference would be modified to be

> compatible. "Normally, once the function to be performed by software has been identified, writing code to achieve that function is within the skill of the art." *Keynetik, Inc. v. Samsung Elecs. Co., Ltd.*, No. 2022-1127, 2023 WL 2003932, at *2 (Fed. Cir. Feb. 15, 2023).

Pet. Reply 24. In addition:

> Petitioner and its expert explain (1) *Woycik*'s administrative tool would provide the same functionality disclosed in *Woycik* to *Olson*'s BO server; (2) such a combination represents the mere application of a known technique to a known system ready for improvement; and (3) a POSITA would have had a reasonable expectation of success adding *Woycik*'s administrative tool to *Olson* given the predictability of the technology and similarity of the architectures.

Id. Petitioner has the better position. And we note that Patent Owner provides no meaningful rebuttal to Petitioner's response in its sur-reply. *See* PO Sur-Reply 17–19.

Petitioner provides unrebutted testimony from its expert, Mr. Gray. *See, e.g.*, Pet. 49–50 (citing Ex. 1002 ¶ 123). Based on the Patent Owner Response and Sur-Reply, Patent Owner does not rely on any testimony from its expert Mr. Cheng on the issue. Accordingly, the evidence before us weighs in favor of Petitioner. And Olson, itself, supports the notion that there would be a reasonable expectation of success implementing the functionality of Woycik's administrative tool in Olson's system. *See, e.g.*, Ex. 1006 ¶ 26 (discussing well-known features and ease of use).

b. point of sale builder software installed on the web server of a web based POS builder system

We agree with Petitioner that Woycik teaches point of sale builder software installed on the web server of a web based POS builder system for the reasons discussed above regarding the challenges based on Woycik. Accordingly, Patent Owner's contentions that "*Woycik* relies on an

administrative tool that runs on a local server kiosk running in a same store with other kiosks, and *Woycik*'s teaching is limited to technology requiring such a local server" (PO Resp. 45) are unpersuasive.

Patent Owner's contentions that "*Olson* is entirely silent with respect to a '**point of sale builder software**' or a '**builder**' or '**to build**' or '**to edit**' POS terminals" (PO Resp. 45) are also unpersuasive because, as noted above, Petitioner relies on Woycik for the point of sale builder software.

In the proposed modification, the Petition relies on "add[ing] *Woycik*'s POS builder software to *Olson*'s BO server." Pet. 48; *see also* Pet. Reply 24.

c. point of sale builder interface accessible to a web server over a communications network

As explained above with respect to the Woycik challenge, we are persuaded that Woycik, itself, teaches this limitation. Further, in this challenge, to the extent the features are not expressly taught by Woycik, the proposed modifications to Olson's teachings based on Woycik render this feature obvious.

Patent Owner acknowledges that "*Olson* alludes to providing **back office software** via a [Software as a Service] distribution model (e.g., via the internet)" (PO Resp. 47), but contends that "*Olson* describes a BO system that stores transaction data and provides other administrative support" and "BO software over the internet is entirely different than 'a POS builder interface' over the internet" (*id.* at 48).

Petitioner explains that "P[atent]O[wner] offers no explanation or evidence to support [its] contention [that] a [person of ordinary skill in the art] would [not] have been motivated to add web-accessible POS builder software (accessible via POS builder interfaces) to Olson's BO server as

another application provided via [Software as a Service]." Pet. Reply 25 (citing Pet. 48–50). Petitioner is correct. And Patent Owner does nothing to rebut Petitioner's explanation. *See* PO Sur-Reply 21. We reproduce the discussion of how Olson and the '012 patent provide their respective software over the Internet below, with the sole difference noted in italics.

> Olson explains that
>
> > An[] advantage is that the *back-office* system can be provided as a service or deployed within a corporation. For example, Software as a Service (SAAS) is a software distribution model in which applications are hosted by a vendor or service provider and made available to customers over a network, typically the Internet.

Ex. 1006 ¶ 27 (emphasis added). The '012 patent provides an explanation almost identical to that of Olson:

> An[] advantage is that the *POS builder* system can be provided as a service or deployed within a corporation. For example, Software as a Service (S[AA]S) is a software distribution model in which applications are hosted by a vendor or service provider and made available to customers over a network, typically the Internet.

Ex. 1001, 6:7–12 (emphasis added).

For the reasons set forth in the Petition and those explained above, the preponderance of the evidence before us supports Petitioner's contentions regarding the obviousness of claims 1 and 14, and significantly outweighs the weak evidence of non-obviousness discussed above.

4. Claims 8 and 16

Claim 8 depends from claim 1, and further recites that "said one or more POS terminals are configured to be accessible by a web browser."[15] Ex. 1001, 7:13–15. Petitioner contends that Woycik teaches the features recited in claim 8 for the reasons presented in the challenge based on Woycik. *See* Pet. 64. Patent Owner disputes those contentions for the reasons set forth in response to the challenge based on Woycik. *See* PO Resp. 50.

We are persuaded by Petitioner's contentions for the reasons set forth above.

Referencing its earlier contentions, Petitioner additionally reasons that

> a POSITA would have been motivated to implement *Woycik'*s administrative tool and/or its features as a BO application on *Olson*'s web server 24/36 to allow programmatic creating and editing of POS terminals in real time via the Internet. EX1002, ¶176. In this modified system, POS terminals (e.g., self-order application and/or its interactive menu screens) are configured to be accessible by a web browser accessing *Olson*'s web server 24/36 with POS builder software (e.g., administrative tool). For example, POS terminals would be viewable via browser access as "BO software and data" on Olson's web server (EX1006, [0019]). EX1002, ¶¶174-177.

Pet. 65. Patent Owner responds that Olson's "remote access is to the back office, and not to POS terminals." PO Resp. 50.

As Petitioner explains in response, however, "[c]laim 8 relates to accessing POS terminals, not terminal devices." Pet. Reply 25. We agree with Petitioner that "*Woycik* discloses and suggests Claim 8." *Id.* As

[15] Claim 16 is similar to claim 8, but Patent Owner chose not to include claim 16 with its contentions regarding claim 8. *See* PO Resp. 50–51. Nevertheless, we include 16 in this section.

Petitioner explains, "*Olson*'s disclosure of remote access to BO software and data further confirms POS terminals in the proposed combination would be accessible by a web browser" and "*Olson*'s disclosure is commensurate with that in the '012 Patent." *Id.* We reiterate the explanation provided above regarding the similarities between the disclosure of the '012 patent and Olson in this regard.

For the reasons set forth in the Petition and those explained above, the preponderance of the evidence before us supports Petitioner's contentions regarding the obviousness of claims 8 and 16.[16]

5. Claims 2–7, 9–13, 15, and 17–20

Patent Owner's response with respect to the remaining claims simply reiterates the contentions presented, and addressed above, with respect to the challenges based on Woycik. *See* PO Resp. 48–49, 51. Those contentions are unpersuasive for the reasons set forth above.

We reiterate the relevant analysis from the challenges based on Woycik above, and adopt Petitioner's additional arguments and evidence from the challenges based on the combination of Olson and Woycik.

For the reasons set forth in the Petition and those explained above, the preponderance of the evidence before us supports Petitioner's contentions regarding the obviousness of claims 2–7, 9–13, 15, and 17–20. And Patent Owner does not present any allegation that its evidence of non-obviousness discussed above is relevant to the additional features recited in claims 5–7, 9–13, 15, or 17–20. As explained above, even if relevant to claims 5–7, 9–

[16] Patent Owner only asserts its evidence of secondary considerations as relevant to claims 1–4.

13, 15, or 17–20, that evidence is outweighed by the unrebutted evidence of obviousness.

Absent any persuasive argument and evidence from Patent Owner, the preponderance of the evidence weighs heavily in favor of Petitioner and significantly outweighs the weak evidence of non-obviousness discussed above.

G. Tengler Challenge

Petitioner asserts that claims 1–20 are unpatentable under 35 U.S.C. § 103 as obvious over Tengler in view of the knowledge of a person of ordinary skill in the art. Pet. 68–99.

1. Tengler

Tengler relates to "an apparatus that includes stations in a quick-serve commercial establishment . . . enabling users to enter orders, check the status of orders, and assemble orders for delivery" and "a network interconnecting the stations." Tengler ¶ 11. "[T]he invention features a method that includes enabling a manager to access a management database of a quick-serve restaurant location remotely through a web interface." *Id.* ¶ 22. "[M]anagers can view information about the multiple restaurants 2 using interfaces 192 and 196 over the Internet" and "can also modify menus and change prices using interfaces 192 and 196." *Id.* ¶ 73. "A user interface designer 614 allows management to edit the user interface of the register and self-service applications and also saves the specifications in the database 602." *Id.* ¶ 103. "A store resident web server 620 enables external managers to view restaurant status information in the database 602 using the interface 190." *Id.* "The store resident web server 620 also allows managers to edit the user interface of the register and self-service applications and also saves the specifications in the database 602." *Id.*

2. Petitioner's Challenge

Petitioner cites Tengler's user interface designer 614 as corresponding to the recited POS builder software and interfaces 192, 196 as corresponding to the recited "POS builder interface." Pet. 73, 76. Petitioner contends that "Tengler's manager interfaces are utilized to access user interface designer (i.e., POS builder software) for creating or modifying user interfaces of register and self-service applications." *Id.* at 80 (citing Ex. 1005 ¶¶ 73, 103, Figs. 7A–B).

As explained in our Institution Decision, Petitioner fails to identify anything in Tengler that teaches manager GUI interfaces 192 and 196 being used to access the user interface designer 614. *See* Inst. Dec. 14–15. Paragraph 73 of Tengler explains that "managers can . . . modify menus and change prices using interfaces 192 and 196" and "[t]he manager's interface is linked directly to the database," but says nothing about user interface designer 614. Paragraph 103 of Tengler explains that "user interface designer 614 allows management to edit the user interface of the register and self-service applications and also saves the specifications in the database 602," but says nothing about interactions between interfaces 192 and 196 and user interface designer 614.

At best, Tengler is silent as to whether interfaces 192 and 196 interact with user interface designer 614. Based on our review of the record, it appears that interfaces 192 and 196 allow managers to modify a database associated with an existing user interface, while user interface designer 614 is used to create or edit the graphical user interface. This understanding is further supported by interfaces 192 and 196 and interface designer 614 each directly accessing the database. *See* Ex. 1005 ¶¶ 73, 107.

Simply stated, the Petition fails to establish that Tengler teaches interfaces 192 and 196 being used to access user interface designer 614.

The only other independent claim, claim 14, is addressed in a cursory manner in the Petition. *See* Pet. 99. Petitioner's challenge simply states that "[c]laims 14–20 recite similar limitations as previous claims identified below, and [are] therefore obvious for the same reasons." *Id.* (citing Ex. 1002 ¶ 271, which simply reiterates this portion of the Petition). Petitioner provides a table mapping portions of claim 14 to its contentions regarding claim 1.

Because Petitioner does not identify any differences between claims 1 and 14, the basis for the challenge to claim 14 is deficient for the same reasons as those noted above for claim 1. There is no further discussion of the Tengler challenges in Petitioner's Reply.

For at least these reasons, the preponderance of the evidence before us does not support Petitioner's challenges based on Tengler.

H. Alleged Constitutional Violation

Patent Owner contends that "the '012 Patent has been litigated and found by a jury to be not invalid, specifically over obviousness arguments based on *Woycik*." PO Resp. 14. Patent Owner contends that our review based on Woycik would violate the Seventh Amendment to the Constitution because it would result in reexamination of a fact previously tried by a jury. *Id.* at 14–15. Patent Owner's position lacks merit.

A trial court does not declare a patent valid, only that the patent challenger did not carry the "burden of establishing invalidity in the particular case before the court." *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1569 (Fed. Cir. 1987). "[T]he patent simply remains valid until another challenger carries [its] burden." *Id.* at 1570; *see also Shelcore, Inc.*

v. Durham Industries, Inc., 745 F.2d 621, 627 (Fed. Cir. 1984) ("A patent is not held valid for all purposes but, rather, not invalid on the record before the court").

In the NCR Litigation, the jury reached a determination that the defendant (a different party than Petitioner) had not established invalidity of the '012 patent in view of Woycik. *See* Ex. 2008 (Jury Verdict Form), 6 (stating that NCR, the defendant in the NCR Litigation, did not prove by clear and convincing evidence that certain claims of the '012 patent are invalid). That determination was not that the '012 patent is valid, but, rather, that the specific case presented by the defendant in the NCR Litigation was deficient.

Moreover, we are reviewing the case presented by Petitioner, who is different than the defendant in the NCR Litigation. And the burden in this proceeding is different than in the NCR litigation. This proceeding applies the preponderance of the evidence standard. *See* 35 U.S.C. § 316(e). The NCR Litigation, on the other hand, applied the higher standard of clear and convincing evidence. *See Kaufman Co. v. Lantech, Inc.*, 807 F.2d 970, 973 (Fed. Cir. 1986) ("Under 35 U.S.C. § 282, a patent is presumed valid, and one attacking validity has the burden of proving facts supporting a conclusion of invalidity by clear and convincing evidence.").

For at least these reasons, we are not persuaded by Patent Owner's contentions regarding the alleged violation of the Seventh Amendment.

III. CONCLUSION

Claims	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1–28	103	Woycik	1–20	
1–28	103	Olson, Woycik	1–20	
1–28	103	Tengler		1–20
Overall Outcome			1–20	

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–20 on the ’012 patent are unpatentable; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to this proceeding seeking judicial review of the Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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