UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

v.

CLOUDOFCHANGE, LLC,
Patent Owner.

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IPR2022-00779
Patent 9,400,640 B2

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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 1–28 of U.S. Patent No. 9,400,640 B2 (Ex. 1001, "the '640 patent"). Paper 1 ("Pet."). CloudofChange, LLC ("Patent Owner") filed a

Preliminary Response. Paper 8 ("Prelim. Resp."). We instituted an *inter partes* review of claims 1–28 of the '640 patent on all grounds of unpatentability alleged in the Petition. Paper 10 ("Institution Decision" or "Inst. Dec."). Clover Network, LLC was joined to this proceeding on June 8, 2023. Paper 22. 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 20, "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 30 ("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 1–28 of the '640 patent are unpatentable.

B. Related Matters

The parties indicate that the '640 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 '640 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.

U.S. Patent Nos. 10,083,012 B2 and 11,226,793 B2 are continuation filings of the '640 patent, and involved in co-pending *inter partes* reviews IPR2022-00997 and IPR2022-01143, respectively.

C. The '640 Patent

The '640 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 '640 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 1:20–24. The '640 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 2:54–56, 61–63.

"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, 2:49–51. Figure 3 from '640 patent is reproduced below.
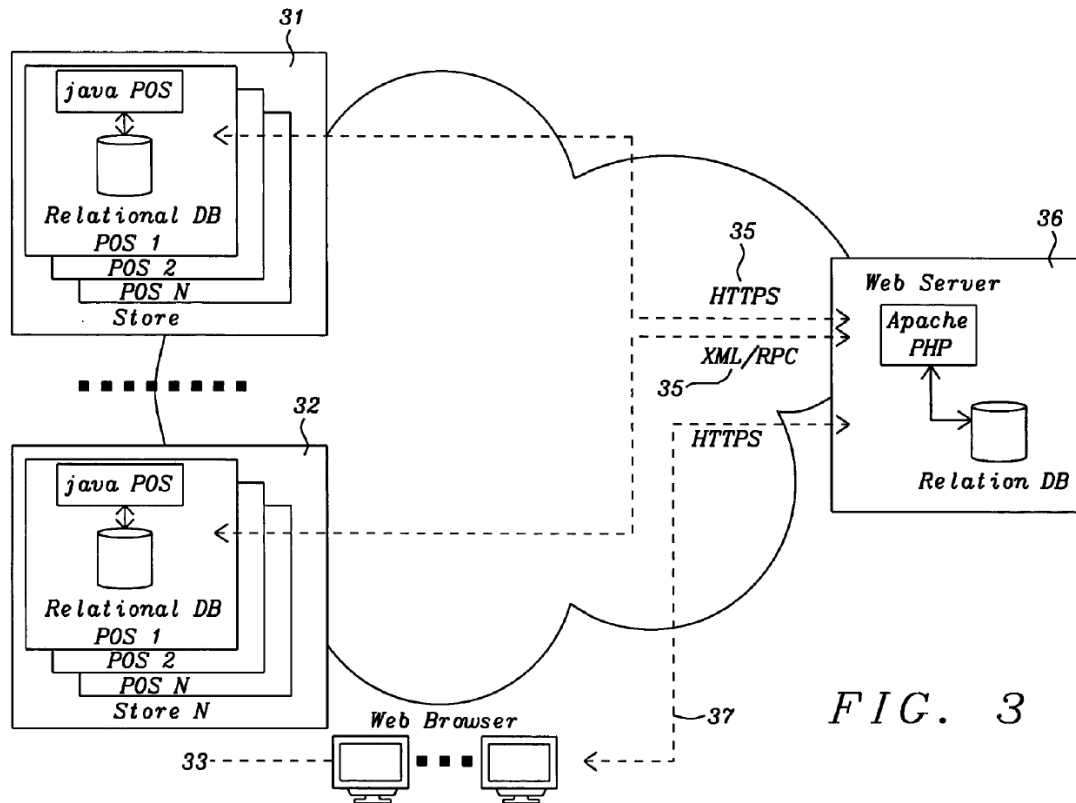
FIG. 3

"F[igure] 3 is a system diagram for web-based back office which supports point of sale terminals" (*id.* at 2:24–25) and "shows a high level diagram of this invention" (*id.* at 3:37).

The discussion of Figure 3 spans little more than one column of the '640 patent. *See* Ex. 1001, 3:37–4:42. 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 3:39–44. "[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 3:45–49.

"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, 4:16–20. The '640 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 (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." *Id.* at 5:58–63.

D. Illustrative Claim

1.   A web-based point of sale (POS) builder system comprising:

    one or more point of sale terminals, that display POS screens,

    an internet connection from said one or more point of sale terminals to a web server,

    one or more local or remote PC workstations, and

    point of sale builder software that runs on said web server, wherein said local or remote workstations are utilized to build or edit said POS terminals in real time, from anywhere in the world and over the worldwide web,

    wherein said web servers are provided as a vendor subscription service wherein web server software resides and is hosted on said vendor's remote servers and wherein subscriber company's POS terminals access and repeatedly interact with

said web server software from said vendor's remote servers, in order to perform the subscriber's desired terminal function, over a network, wherein the network comprises the Internet.

Ex. 1001, 6:11–28.

E. Evidence and Asserted Grounds

Petitioner asserts that claims 1–28 would have been unpatentable on the following grounds:

Claim(s) Challenged	35 U.S.C. §[1]	Reference(s)/Basis
1–28	103	Woycik[2]
1–28	103	Woycik, Manno
1–28	103	Olson[3], Woycik
1–28	103	Manno[4]

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

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).

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[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. 1005).
[3] US Patent Pub. No. US 2008/0208696 A1, published Aug. 28, 2008 (Ex. 1006).
[4] US Patent Pub. No. US 2004/0181454 A1, published Sept. 16, 2004 (Ex. 1004).

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 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 '640 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 software and systems, including web-based POS systems." Pet. 7–8; *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. 8; *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. 9–10. 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 '640 patent" and "makes experience in retail POS systems optional." PO Resp. 9. Patent Owner contends that its "proposed definition of a POSITA remedies this deficiency by including experience or equivalent study in the field of the '640 Patent, retail point of sale ("POS") systems, including experience with building POS screens." *Id.* at 10. 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.* Patent Owner contends that "Stephen Gray is not a POSITA with reference to the '640 Patent" and "[t]estimony of an expert that fails to meet the definition a POSITA should be excluded."[5] *Id.*

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

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 the 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 'it would be hard to point out' any opinions in his supporting declaration that rely on the difference in levels of ordinary skill proposed by the parties." *Id.* (citing Ex. 1030, 53:6–14). 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 '640 Patent under either standard." PO Sur-Reply 25 (citing PO Resp. 9–10).

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 software. Indeed, at oral hearing Patent Owner expressly acknowledged that such software 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

9

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. 37–40), whether Woycik teaches its point of sale software running on a remote server (*id.* at 40–42), and whether Woycik teaches software as a subscription service or software hosted on a vendor's remote servers (*id.* at 42–44).

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 functionality provided by Olson's POS system with web-based back office)." Pet. 72. 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.

Nevertheless, we also agree with Petitioner that a person of ordinary skill in the art is not limited to someone experienced in building POS screens. Although, as noted above, the '640 patent characterizes the novelty as 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. 2022, 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 (stating without further discussion: "Although experienced in 'point-of-transaction systems,' Petitioner's expert is not a POSITA with respect to the '640 Patent under either standard. POR, 9-10.").

For purposes of this decision, we analyze the asserted prior art with respect to the level of skill set forth by Petitioner, but we would reach the same outcome 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. According to Petitioner, "terms should be given [the] 'ordinary and customary meaning' to those of skill in the art." Pet. 8. Petitioner notes that "[i]n the NCR Litigation, the district court issued claim construction orders addressing terms of the '640 patent" with "[m]ost terms . . . given their plain and ordinary meaning." Pet. 8 n.3. Petitioner indicates that it "does not rely on those orders or believe they impact the grounds herein." *Id.*

Patent Owner contends that "[t]he Board should adopt the Court's construction for 'POS screens'" from "related litigation, [where] the Western District of Texas construed . . . terms,'" and reproduces those constructions. PO Resp. 11–12.

In its Reply, Petitioner contends that "[n]o construction is necessary," and notes that "P[atent]O[wner] never relies on the construction of 'POS screens' or articulates any dispute concerning the prior art's disclosure of 'POS screens.'" Pet. Reply 3–4. Patent Owner does not address claim construction in its Sur-Reply.

There appears to be an underlying dispute, at least with respect to what is required by POS builder software. PO Resp. 18; Pet. Reply 5–8. But this only appears with respect to the Manno, alone, challenge. We need not expressly construe "POS builder software" because, as explained below, we do not reach the Manno, alone, challenge in this decision.

Accordingly, 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.'" (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 1–28." PO Resp. 65 (citing Ex. 2015 ¶¶ 183–188). The cited paragraphs of Mr. Cheng's testimony essentially repeat, verbatim, pages 67–70 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. 65–70.

Patent Owner contends that "[t]here is a strong nexus between [Patent Owner]'s claimed invention (recited in Claims 1, 3–6, 11–13) and [Patent Owner]'s secondary consideration evidence." PO Resp. 67. Patent Owner relies on the jury verdict from the NCR litigation to support its contentions regarding nexus and commercial success. *See id.* at 67–68. We reproduce the totality of Patent Owner's 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, 3–6, 11–13) were invalid; (ii) NCR's infringement was willful; and (iii) CloudofChange was entitled to $13,200,000 in damages. EX2008, 5, 7–8. 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, 3–6, 11–13 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, 3–6, 11–13 of the '640 Patent. EXs2009–2011, 2022. 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 cla[i]med features of Claims 1[,]3–6, and 11–13 of the '640 Patent. EX2008, 5, 7–8. Therefore, there is a nexus between the claimed invention as a whole, as recited in Claims 1, 3–6, and 11–13, and the commercial success.

PO Resp. 67–68. 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, 3–6, 11–13 and had sales of over $100 million." *See* Ex. 2010, 164:12–20. Finally, Exhibit 2022, also cited 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 know, based on Mr. Cheng's testimony, that the NCR Silver product included features that are not found in the claims of the '640 patent. *See* Ex. 1030, 139:10–142:3. We credit that testimony, but 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, merely stating that "based on the damages and the [jury] verdict, that a nexus existed." *Id.* at 141:12–13.

Based on the record before us, 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 '640 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. 68–70.

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 unresolved.

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 '640 patent. *See* PO Resp. 69. 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 "by 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, 15." PO Resp. 69.

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

E. Woycik and Woycik/Manno Challenges

Petitioner asserts that claims 1–28 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. 39–63. Petitioner additionally asserts that claims 1–28 are unpatentable under 35 U.S.C. § 103 as obvious over Woycik

and Manno. Pet. 63–69. We address these challenges together below in view of their substantial overlap.

Although claims 1–14 recite a system and claims 15–28 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. 63, 69 (referring to the challenge of claims 1–14 for claims 15–28); PO Resp. 50–51, 53 (referring to the response regarding claims 1–14 for claims 15–28); *see also* Tr. 50:17–19 (PO acknowledging no difference for the IPR). 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. 1005 ¶ 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. 1005 ¶ 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.
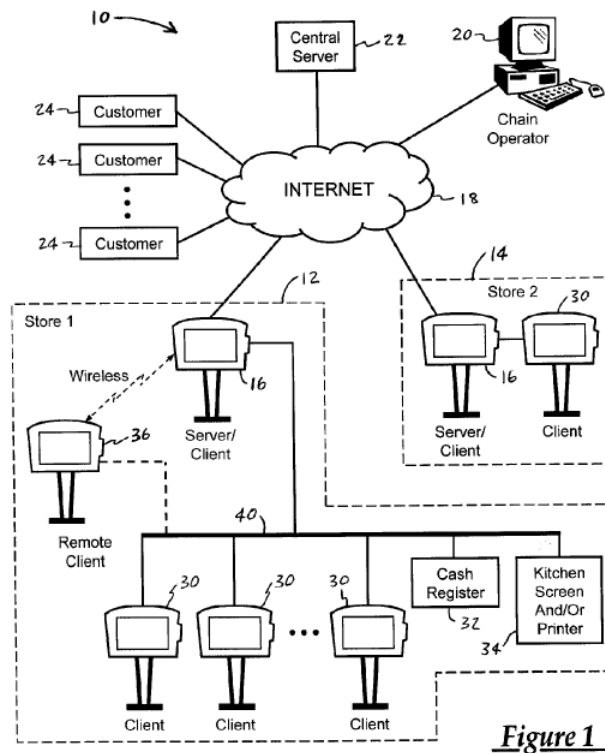
Figure 1 of Woycik is reproduced below.

Figure 1

Figure 1 of Woycik is a schematic illustration of a "self-service ordering system." Ex. 1005 ¶ 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. 1005 ¶ 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.
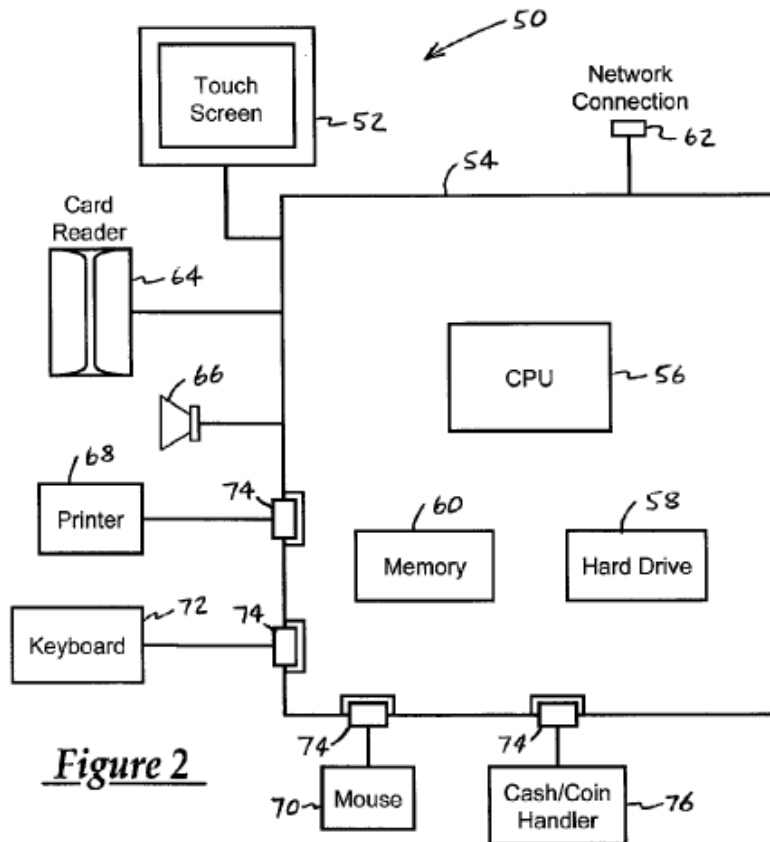

Figure 2

Figure 2 is "an exemplary kiosk of the ordering system." Ex. 1005 ¶ 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.

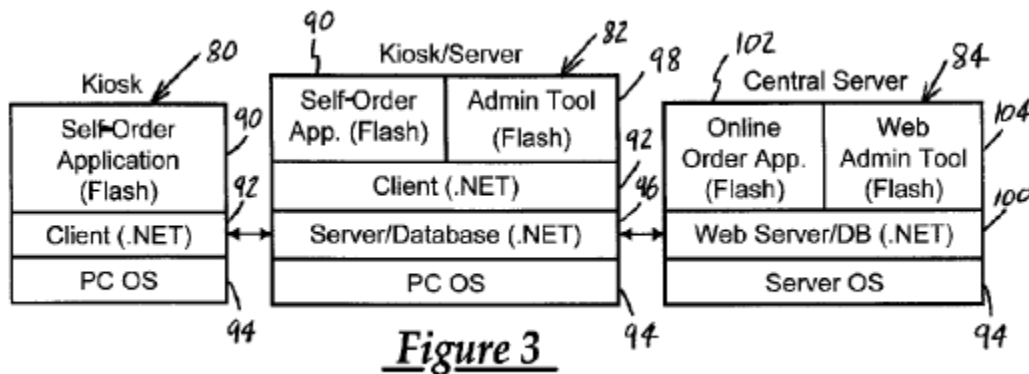Figure 3 further illustrates Woycik's system, and is reproduced below.

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. 1005 ¶ 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. 1005, ¶ 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. *Manno*

Manno is "related to a network-based point-of-sale system that permits a computer (or other device) that is browser enabled to be used as a point-of-sale station, and which also allows the retail business to manage its store or stores using . . . the Internet." Ex. 1004 ¶ 1. Manno explains that "[i]n modern retail environments the point-of-sale station can include a computer or similar electronic processor, with various associated point-of-sale (POS) peripheral devices." *Id.* ¶ 2. "The various POS devices or processors may be on-line with an in-store computer." *Id.*

"[I]t is an object of [Manno's] invention to provide a web-based, i.e., network based, point-of-sale system [(WPOS system)] in which a standard browser-enabled computer can be employed as a point-of-sale station." Ex. 1004 ¶ 8; *see also id.* ¶ 15. Manno explains that because "[t]he WPOS . . . allows any computer with access to the Internet via web browser to use the WPOS . . . there is no software to install at the point-of-sale." *Id.* ¶ 23. Manno's WPOS allows for the "[s]tore database and web database [to] be shared, allowing for management to make changes in store quantities, prices, etc., with such changes being updated instantly at the stores and at the store's web site," and allows "management [to] select which products are sold via Internet, at the store, or both, at the time the product is entered into stock." *Id.* ¶ 29. Manno explains that "WPOS can perform as a subscription service for companies to connect remotely to a staged WPOS server that is maintained by a WPOS management service." *Id.* ¶ 65. Manno also explains that "any business that feels an in-store server is not necessary, might be interested in subscribing to a remote WPOS server, if the business's connection (i.e., Internet speed) supports it." *Id.*

23

3. Claims 1 and 15

In the challenge based on Woycik, alone, and the challenge based on the combination of Woycik and Manno, Petitioner cites Woycik as teaching every limitation of claim 1, other than "wherein said web servers are provided as a vendor subscription service wherein web server software resides and is hosted on said vendor's remote servers." *See* Pet. 16–27, 63–66; *see also* Pet. Reply 20 n.5. The majority of Petitioner's contentions regarding Woycik's teachings are not disputed by Patent Owner. *See* PO Resp. 37–44. We adopt Petitioner's undisputed contentions and supporting evidence for purposes of this decision.

Initially, we note that in this proceeding, there does not appear to be any meaningful dispute as to whether the preamble is limiting because, as explained below, the preamble adds nothing that is not already recited in the body of the claim. Nevertheless, for completeness, we address the preamble below.

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. 1044. That order determined that the preamble is not limiting.[6] 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

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

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. The body of claim 1 expressly recites "an internet connection from said one or more point of sale terminals to a web server" and "point of sale builder software that runs on said web server," which we address below.

a. one or more point of sale terminals, that display POS screens

Petitioner identifies Woycik's kiosks 16 as POS terminals that display POS screens. Pet. 40–41. Consistent with the summary of Woycik discussed above, Petitioner additionally explains that "*Woycik* discloses in-store kiosks (labeled 16/82, 30/80, and 50) that include 'most of the elements commonly found in a general purpose computer,' including a computer display screen that allows "customers to select products for purchase from those listed on the screen.'" Pet. Reply 12 (citing Ex. 1005 ¶¶ 7, 77, Fig. 2).

Patent Owner does not dispute that Woycik's kiosks are POS terminals that display POS screens. *See* Pet. Reply 13 n.2 (Patent Owner "does not dispute Woycik's kiosk 16 is a POS terminal[, although it's] expert initially disputed this point . . . before conceding kiosk 16 is a POS terminal.") (citing Ex. 1031, 248:10–251:17, 252:21–23); *see also* PO Sur-Reply 9–16; Tr. 42:3–8. And Patent Owner's expert, Mr. Cheng, ultimately agreed that Woycik's kiosk 16 is a POS terminal. Ex. 1031, 252:21–23.

The preponderance of the evidence supports Petitioner's undisputed contentions regarding Woycik's teaching of "one or more point of sale terminals, that display POS screens," as those contentions are consistent with the disclosure of Woycik discussed above.

b. an internet connection from said one or more point of sale terminals to a web server

Petitioner contends that "*Woycik* discloses central server 22/84 'to coordinate multiple store locations.'" Pet. 42 (citing Ex. 1005 ¶ 30). Petitioner contends that the "central server provides 'web access' for the chain operator or administrator to access the administrative tool." *Id.* (citing Ex. 1005 ¶ 75). Petitioner further contends that "Woycik . . . discloses the central server is connected to kiosk 16[/82] via an internet connection" and "[s]pecifically, kiosk 16[/82] 'is connected to the Internet 18 which . . . enables the local server 16[/82] to access a central server 22[/84] for software and media updates." *Id.* (citing Ex. 1005 ¶ 71); *see also* Pet. Reply 12–16. Petitioner's contentions are consistent with the disclosure of Woycik discussed above, and can be seen in Figure 1 above.

Patent Owner appears to dispute these contentions, alleging that "[u]nlike the claimed technology, which communicates directly from the webserver 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." PO Resp. 35 (citing Ex. 1005, Fig. 3). But Patent Owner's response does not accurately address the disclosure of Woycik relied on by Petitioner.

As Petitioner explains, Patent Owner does not address kiosks 16/82, which are cited in the Petition as corresponding to the recited point of sale terminals. *See* Pet. Reply 13 (Patent Owner "repeatedly references kiosk

30/80 . . . which are irrelevant because Petitioner does not rely on kiosks 30/80.") (citing PO Resp. 35, 39–40). In its Sur-Reply, Patent Owner responds that "in each embodiment of *Woycik*, the POS terminal communicates with the local server—not the central server 22—in order to perform the subscriber's desired terminal function." PO Sur-Reply 11 (citing Ex. 1005 ¶ 95). Patent Owner further responds:

> Petitioner admits that communication between the kiosk and the central server is done "indirectly" at best. Reply, 15. The Reply correctly notes that kiosk 16/82 is used "as the **local server to interface to the Internet** 18 and to respond to requests from the local client kiosks 30." Reply, 12 (quoting EX1005, [0072]) (emphasis added). Even as described by Petitioner, the local server (not the kiosk) is the interface to the internet, and thus the central server.

Id. at 12. Patent Owner additionally contends that "Petitioner continues to conflate a kiosk and the local server, with an argument tantamount to saying that because a client and a server may share a physical box, the whole box is a client," but "as required by the Challenged Claims it is the communications (i.e., 'access and interact[ions]') from the 'subscriber's company's POS terminals' to the vendor's remote server, in order to perform the subscriber's desired terminal function." *Id.* at 12–13.

Patent Owner's contentions are primarily based on a fictional requirement that claim 1 precludes an in-store server. But the claim has no such recitation. We note that claim 5[7], which depends from claim 1 and is addressed below, recites "no specialized hardware or software is required to implement said POS builder, and wherein *no on site, in-store server is*

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[7] Claim 19, which depends from claim 15 includes a similar recitation.

required." Ex. 1001, 40–42. And even claim 5 does not *preclude* an in-store server, it simply recites that an in-store server is *not required*.[8]

It is clear from the discussion of Woycik above that kiosk 16/82 directly communicates with central server 22/84. Because, as explained above, kiosk 16/82 is properly considered a point of sale terminal, Woycik teaches an internet connection from said one or more point of sale terminals to a web server. This understanding is supported even by Patent Owner's annotated version of Woycik's Figures 1 and 3 (PO Resp. 32), which we reproduce below.

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[8] And as discussed below, even if the claims are read to preclude an in-store server, Petitioner provides persuasive argument and evidence for such a modification to Woycik's system.
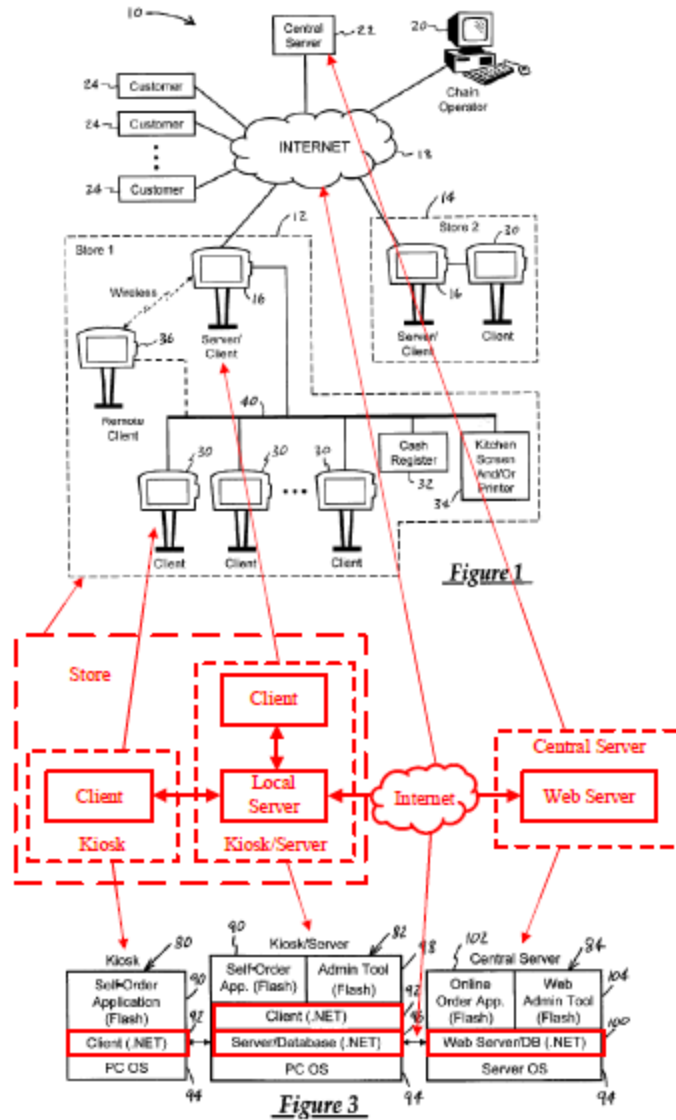
Figure 1

Figure 3

The figure reproduced above is a combination of Woycik's Figure 1 (a schematic illustration of a "self-service ordering system" (Ex. 1005 ¶ 31)) and Woycik's Figure 3 (an "illustrat[ion of] the various software layers running on the client kiosks, client/server kiosk, and central server in the . . . ordering system" (*id.* ¶ 33)), along with Patent Owner's annotations indicating the relation between Figures 1 and 3, particularly the connection from the kiosks to the web server over the internet. PO Resp. 32.

Patent Owner notes that the internet connection between Woycik's POS terminal (kiosk 16/82) and web server (central server 22/84) occurs between the server program 96 and central server 22/84, rather than between client program 92 and central server 22/84. But Patent Owner's distinction between "client" and "server" has no basis in the claim. The claim requires "an internet connection from said one or more point of sale terminals to a web server." As explained above, kiosk 16/82 is properly considered a point of sale terminal. There is no dispute that client program 92 and server program 96 are part of Woycik's point of sale terminal (kiosk 16/82). *See* Ex. 1005 ¶ 79 ("the server kiosk 82 . . . includes not only the client program 92, but also a server program 96"); *see also* Patent Owner's annotated version of Woycik's Figures 1 and 3 reproduced above.

Moreover, as Petitioner notes, there is no requirement in the claim that "prohibit[s] other software or hardware from being in the communication path between *Woycik*'s client software on kiosk 16/82 and web server software on central server 22." Pet. Reply 15. And as Petitioner also notes, "P[atent]O[wner]'s expert concedes client software on kiosk 16/82 communicates indirectly with the administrative tool software on central server 22." *Id.* (citing Ex. 1030, 121:3–6).

For at least these reasons, the preponderance of the evidence supports Petitioner's contentions that Woycik teaches "an internet connection from said one or more point of sale terminals to a web server."

c. one or more local or remote PC workstations . . . utilized to build or edit said POS terminals in real time, from anywhere in the world and over the worldwide web

Petitioner contends that "*Woycik* discloses chain operator 20 has 'web access to the central server 22' via Internet 18," which "'can also be used by

the administrators to access the administrative tools remotely using a standard web browser.'" Pet. 43 (citing Ex. 1005 ¶¶ 75, 121). Petitioner contends that Woycik's chain operator 20 in Figure 1 corresponds to the recited "local or remote PC workstation[]." *Id.* at 44: *see also id.* at 45–46. The cited portion of Woycik discusses the chain operator using a general purpose computer with web access to the central server 22.

Patent Owner does not dispute these contentions. The preponderance of the evidence supports Petitioner's contentions regarding Woycik's teaching of "one or more local or remote PC workstations."

d. point of sale builder software that runs on said web server

Petitioner contends that Woycik's "'administrative tool' [(point of sale builder software)] is 'loaded on the central server 22' [(web server)]." Pet. 46 (citing Ex. 1005 ¶ 75). Petitioner contends that "the 'administrative tool' is POS builder software enabling the administrator to create and edit the interactive menu screens provided by the self-order application on kiosks 16." *Id.* (providing an annotated version of Woycik's Figure 3 identifying Woycik's "web based administration tool 104" as "POS builder software").

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. 1005 ¶ 75.

Patent Owner responds that "*Woycik* . . . does not disclose 'point of sale [POS] builder software that runs on said web server' at least because *Woycik* does not teach (or even mention) POS builder software, let alone POS builder software that runs on a remote server." PO Resp. 40–41.

For the reasons explained above, we are persuaded that Woycik teaches POS builder software. Indeed, as explained above, Patent Owner, itself, acknowledges such a teaching in Woycik. *See* Tr. 42:3–8. Accordingly, Patent Owner's contention that "*Woycik* does not teach (or even mention) POS builder software" has no merit.

As for whether Woycik's POS builder software runs on a web server, 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 administrative tool configures the server kiosk." PO Resp. 42 (citing Ex. 2015 ¶ 110); *see also id.* at 40–42 (citing Ex. 2015 ¶¶ 106–111).

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 12 ("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)." *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 14. We again note that the claim does not preclude the POS builder software from 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. 1005 ¶ 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 "point of sale builder software that runs on said web server."

e. said web servers are provided as a vendor subscription service wherein web server software resides and is hosted on said vendor's remote servers

Initially, as stated in the Institution Decision:

> we see no additional structure required by claim 1's recitation that the "web servers are provided as a vendor subscription service." And the '640 patent, itself, provides no information for this limitation beyond a generic indication that "the POS builder system can be provided as a service or deployed within a corporation," along with a statement that "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, 5:58–63.

Inst. Dec. 15–16. As Petitioner notes (Pet. Reply 17), Patent Owner did not provide any response to that understanding of the claim.

When asked directly what structure is added to the claim by the vendor server/subscription service limitation, Patent Owner could identify none. *See* Tr. 46:16–47:22. Rather, Patent Owner simply alleged that "the structure being that this server is belonging to a third party, we just believe that's not obvious for somebody to do in 2008" (*id.* at 47:8–10) and "in terms of structure, I think it's the third-party nature of having your credit card information, POS transactions your inventory, all housed by someone else, we think that's a pretty big deal" (*id.* at 47:14–16).

There is no structural difference between a web server such as central server 22 in Woycik and "web servers [that] are provided as a vendor subscription service" in claim 1.[9] Indeed, according to Patent Owner's characterization of what makes the vendor server/subscription service limitation non-obvious, the same structure would disclose the structural limitation when owned by one person (e.g., a vendor), yet the identical structure would not disclose that same structural limitation when owned by a different person (e.g., a store operator). Patent Owner acknowledges that "[t]he central server of *Woycik* is located remotely, communicating with the local server via an internet connection." PO Resp. 48. Accordingly, we see

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[9] Although not addressed by Patent Owner, claim 15 recites a method requiring "web servers [are] provided as a vendor subscription service." Any further requirements of this method claim are addressed in the following paragraph.

no structure added to the claim by this limitation that is not already present in Woycik.

Nevertheless, Petitioner provides multiple reasons why such an arrangement would have been obvious. One reason is that one skilled in the art "would have been motivated to provide central server as a subscription service for franchisees" because "[a] shared central server would minimize costs and IT complexity for franchisees by sharing a server maintained by the franchiser and provide POS consistency across franchisees." Pet. 47 (citing Ex. 1002 ¶ 132). Petitioner further explains, for example, that "[i]mplementing central server and its software as a subscription service would enable a franchiser to monetize central server 22/84 and software, distribute server costs among subscribing franchisees, and reduce startup costs for franchisees." *Id.* at 48 (citing Ex. 1002 ¶ 133)." Petitioner's rationale is essentially undisputed. Patent Owner's response that "at the time POS software and POS builder software was complex and not hosted in this architecture" is inconsistent with its acknowledgement that there is no structure required beyond that already disclosed by Woycik's central server 22, as discussed above.

The express disclosure of Manno provides further support for Petitioner's rationale. Petitioner contends that "*Manno* discloses 'a fully functional WPOS that allows general purpose small computers, i.e., personal computers, to connect to the store interface and to serve as point-of-sale stations.'" Pet. 64 (citing Ex. 1004, Abstract). As Petitioner explains, "*Manno* further discloses the WPOS server 12 can be offered as 'a subscription service for companies to connect remotely to a staged WPOS server that is maintained by a WPOS management service.'" *Id.* (citing Ex. 1004 ¶ 65). And as Petitioner notes (*id.*), Manno expressly acknowledges

cost savings as a reason for using such a subscription service. *See* Ex. 1004 ¶ 65 ("Small-scale and/or mobile businesses (e.g., 'where only a single POS or cash register would be needed') can 'subscribe to WPOS for a monthly fee, instead of having to purchase a WPOS server.'").

For at least these reasons, the preponderance of the evidence supports Woycik, itself, teaching the structure required by "said web servers are provided as a vendor subscription service wherein web server software resides and is hosted on said vendor's remote servers." And to the extent some additional rationale is required to modify Woycik's teachings to specify that the servers are owned by a vendor and provided as a subscription service, the preponderance of the evidence weighs heavily in favor of Petitioner and outweighs Patent Owner's weak evidence of non-obviousness, particularly in view of the express teachings from Manno noted above.

f. *subscriber company's POS terminals access and repeatedly interact with said web server software from said vendor's remote servers, in order to perform the subscriber's desired terminal function, over a network, wherein the network comprises the Internet*

Petitioner reiterates, as noted above with respect to element "b," that "central server 22/84 (the web server) communicates with kiosks 16 (the POS terminals) via Internet 18." Pet. 49. Petitioner explains that "[a person of ordinary skill in the art] would understand kiosks 16 access and repeatedly interact with web server software from central server 22/84 to perform subscriber's terminal functions, such as downloading and/or updating the self-order application, diagnostics, installation, data reporting, and order processing." *Id.* at 50 (citing Ex. 1002 ¶¶ 135–137).

There is no dispute regarding Petitioner's contentions on this limitation, other than those discussed above as to whether it would have been obvious to have a vendor own the servers and provide access on a subscription basis. The preponderance of the evidence supports Petitioner's undisputed contentions regarding the additional recitations noted above. Again, we agree that Woycik's kiosks 16/82 and central server 22/84 interact in the manner recited in the claim.

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 15. As noted above, Patent Owner does not draw a distinction between the requirements of claims 1 and 15.

We also determine that any requirement regarding ownership of the servers and whether access to those servers is provided as a subscription service would have been obvious to one skilled in the art for the reasons discussed above.

As explained above, Patent Owner's evidence of non-obviousness is not compelling and is outweighed by Petitioner's case of obviousness. Woycik teaches every element of the claims. And to the extent any modification is needed, it is expressly taught by Manno.

4. Claims 4 and 18

Claim 4 depends from claim 1 and recites that "the testing of said POS screens is done iteratively in real time while said POS terminals are simultaneously in use during store and business operation hours." Ex. 1001, 6:35–38.

The '640 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 2:54–57. "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 2:59–63.

In the '640 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, 2:66–3:1. With respect to the particular features recited in claim 4, the '640 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 3:1–4. 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 3:9–12. "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 3:14–23.

The '640 patent also explains, "[p]reviously, the store operator would avoid updating screens, since it involved the time and expense of working with programmers offline." Ex. 1001, 3:34–36. 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 3:27–31.

Referencing its earlier contentions regarding "Woycik disclos[ing] POS builder software (e.g., administrative tool) that allows an administrator to create and edit interactive POS menu screens," Petitioner contends that "[a person of ordinary skill in the art] would understand Woycik discloses and suggests iterative testing of POS screens in real time using the administrative tool." Pet. 51.

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. 51 (citing Ex. 1005 ¶¶ 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 ¶ 144).

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. 51 (citing Ex. 1005 ¶ 42). Petitioner reasons that "[a person of ordinary skill in the art] would understand this iterative process discloses and suggests testing POS screens iteratively in real time while POS terminals are in use." *Id.* at 52 (citing Ex. 1002 ¶ 145).

Petitioner provides a third example, where "*Woycik* discloses changes made with the administrative tool can be carried out automatically or periodically '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. 52 (citing Ex. 1005 ¶ 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 "[a person of ordinary skill in the art] would understand controlling POS screen updates by kiosk or group discloses and suggests testing POS screens iteratively in real time while POS terminals are in use," such as "a subset of kiosks (POS terminals) or stores . . . receiv[ing] and test[ing] updated POS screens while other POS terminals or stores continue to operate." *Id.* at 53 (citing Ex. 1002 ¶ 146). Petitioner further contends that because "some kiosks can be updated 'during idle time' or at specific times, [Woycik] discloses and suggests that testing of POS screens occurs in real time at some kiosks while others are simultaneously in use during store and business operation hours." *Id.*

Patent Owner responds: (1) "*Woycik* does not discuss 'testing'" (PO Resp. 44 (citing Ex. 2015 ¶¶ 117–18)); (2) Woycik's "administrative tool does not provide for testing (or updating) in real time" (*id.* (citing Ex. 1005 ¶ 73; Ex. 2015 ¶ 119)); and (3) Woycik's "updating process is not iterative for the kiosks" (*id.* at 45).

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 '640 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, 2:66–3:1. 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. 1005 ¶ 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 '640 patent. And just like the '640 patent, those changes can be made "while said POS terminals are simultaneously in use during store and business operation hours" as recited in claim 4 because they are not made on the terminals, themselves, but rather done remotely and subsequently provided to the terminals. *See* Pet. Reply 18–19.

We agree with Petitioner that it is unclear what else Patent Owner believes is missing from Woycik. Pet. Reply 18–19. 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 4 is unclear, . . . has declined to request claim construction of these terms," and "written description/enablement are not at issue." PO Sur-Reply 19.

Based on the record before us, the preponderance of the evidence supports Petitioner's contentions that Woycik teaches the features recited in claim 4.

5.   Claims 5 and 19

Claim 5 depends from claim 1 and recites that "no specialized hardware or software is required to implement said POS builder, and wherein no on site, in-store server is required." Ex. 1001, 6:40–42.

As noted above in our discussion of claim 1, the additional features recited in claim 5 do not preclude the use of an in-store server, but, instead, simply recite that "no on site, in-store server is required." But even if we read the claim as eliminating the use of an in-store server, the preponderance of the evidence before us weighs in favor of Petitioner.

Petitioner provides a number of reasons to eliminate the use of an in-store server in Woycik. *See* Pet. 53–55, 67 (referencing sections XI.E and XII.E, which correspond to pages 30–31 and 53–55 of the Petition, respectively). Petitioner contends that Manno teaches that no in-store server is required (*id.* at 31) and that "a [person of ordinary skill in the art] would understand *Woycik*'s ordering system could be implemented with a single in-store kiosk at each store location connected via Internet to a central server and would have had a reasonable expectation of success in doing so" (*id.* at 55). Petitioner further contends that "[a person of ordinary skill in the art] would have been motivated to eliminate the on site, in-store server to reduce the cost and complexity of the system, particularly for small and mobile merchants." *Id.* (citing Ex. 1002 ¶ 151). Petitioner cites Manno's paragraph 65, for example, which expressly states that "[a] small business, a business under construction, or any business that feels an in-store server is not necessary, might be interested in subscribing to a remote WPOS server, if the business's connection (i.e., Internet speed) supports it." *See id.* at 30. As seen above, Petitioner's reasoning to modify Woycik provided on page 55 of the Petition is expressly supported by the teachings of Manno.

Patent Owner refers to various prior sections of its Patent Owner Response to address Petitioner's proposed modifications for claim 5 based on Manno.[10] PO Resp. 53 (referencing sections V.A.6 and V.B.6, which correspond to pages 25–26 and 45–46, respectively, of the Patent Owner Response). But none of those sections address the specific findings and reasoning for the combination noted above.

Pages 25–26 of the Patent Owner Response contend that Manno requires an in-store server, but fail to address the teachings from Manno's paragraph 65 noted above. Pages 45–46 of the Patent Owner Response contend that Woycik requires an in-store server.

As noted above, we see no reason why Woycik requires an in-store server, particularly when modified in the manner proposed in the Petition. Petitioner's contentions are particularly persuasive because the reasoning for the proposed modifications are expressly stated in Manno, itself. And 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.

6. Claims 6 and 20

Claim 6 depends from claim 1, and recites that "said POS builder is useable to deliver POS application solutions using Software as a Subscription (SAAS)." Ex. 1001, 6:44–46.

It is unclear what claim 6 requires beyond what is required by claim 1's "web servers [being] provided as a vendor subscription service [with]

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[10] In its Sur-Reply, Patent Owner faults Petitioner for providing a similar mapping to prior arguments. *See* PO Sur-Reply 21–22.

web server software resid[ing] and . . . hosted on said vendor's remote servers." For at least the reasons discussed above regarding claim 1, we believe that claim 6 is taught by Woycik. Moreover, similar to our discussion of claim 1's recitation that "said web servers are provided as a vendor subscription service wherein web server software resides and is hosted on said vendor's remote servers," we fail to see the additional structure required by claim 6. [11]

Nevertheless, we are additionally persuaded by Petitioner's contention that "a [person of ordinary skill in the art] would have been motivated to employ the subscription model disclosed and suggested in Manno for Woycik's central server and administrative tool." Pet. 68 (referencing sections XI.F and XII.F, which correspond to pages 31–32 and 55 of the Petition, respectively). Petitioner contends, for example, that

> *Manno* discloses "WPOS can perform as a subscription service for companies to connect remotely to a staged WPOS server that is maintained by a WPOS management service" such that small-scale businesses could "subscribe to WPOS for a monthly fee" and "only a single POS or cash register would be needed" at the business.

Id. at 31 (citing Ex. 1004 ¶ 65). Petitioner contends that "[t]o the extent this claim requires 'Software as a Service,' the '640 patent describes this term as '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 31–32 (citing Ex. 1001, 5:60-62). Petitioner contends that "*Manno* is consistent with this description and therefore

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[11] Although not addressed by Patent Owner, claim 20 recites a method requiring "said POS builder is useable to deliver POS application solutions using software as a subscription (SAAS)." Any further requirements of this method claim are addressed in the following paragraph.

discloses and suggests providing both server 12 and associated software (e.g., WPOS application) to small-scale businesses over the Internet as a subscription service." *Id.* at 32 (citing Ex. 1002 ¶ 75).

Petitioner's contentions are consistent with the cited portions of Manno, Woycik, and the '640 patent. These contentions are essentially unrebutted by Patent Owner. *See* PO Resp. 46–47. 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.

7. *Claims 8–12 and 22–26*

Claims 8–12 and 22–26 recite various features of the "POS builder." Ex. 1001, 6:53–67, 8:14–30.

Petitioner contends that Woycik teaches each of these features. *See* Pet. 57–61, 63. Other than Patent Owner's contentions addressing claim 1, which we find unpersuasive for the reasons set forth above, Petitioner's contentions regarding claims 8–12 and 22–26 are essentially unrebutted. *See* PO Resp. 47–51; Pet. Reply 19. And the only discussion of any particular claim limitation relevant to claims 8–12 and 22–26, specifically, is a reproduction of claim language. There is no meaningful argument.

We adopt Petitioner's arguments and evidence, which are supported by the disclosure of Woycik and, as noted above, are essentially unrebutted. 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.[12]

8. *Claims 2, 3, 7, 13, 14, 16, 17, 21, 27, and 28*

Claims 2, 3, 7, 13, and 14 each depend from claim 1. Claims 16, 17, 21, 27, and 28 each depend from claim 15.

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. 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.[13]

F. *Olson/Woycik Challenge*

Petitioner asserts that claims 1–28 are unpatentable under 35 U.S.C. § 103 as obvious over Olson and Woycik. Pet. 70–88. Although claims 1–14 recite a system and claims 15–28 recite a method, the claims are similar in scope. For purposes of this proceeding, the claims are treated the same by both parties. *See id.* at 88 (referring to the challenge of claims 1–14 for claims 15–28); PO Resp. 65 (referring to the response regarding claims 1–14 for claims 15–28); *see also* Tr. 50:17–19 (PO acknowledging no difference for the IPR). For simplicity, our discussion references the system claims, with the understanding that the discussion applies equally to the method claims.

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[12] As discussed above, claims 11 and 12 are the only claims in this group that Patent Owner asserts as relevant to its evidence of non-obviousness.

[13] As discussed above, claim 13 is the only claim in this group that Patent Owner asserts as relevant to its evidence of non-obviousness.

1. Olson Prior Art Status

There is an initial dispute as to whether Olson qualifies as prior art. *See* PO Resp. 55; Pet. Reply 22–23; PO Sur-Reply 24–25. 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 '640 patent] were, at the time the claimed invention [of the '640 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 the '640 patent. *See* Ex. 2007. Mr. Ackerman makes clear that Olson[14] was never assigned to anyone. *See id.* ¶ 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.

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[14] 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.

Page 268 of Exhibit 1003, 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. 1003, 268. The statement in the Patent Owner Response that "the subject matter of Olson and the claimed invention in the '640 patent were assigned to the same assignee" refers to that page of the IDS and is also incorrect. PO Resp. 55. 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 '640 patent] were, at the time the claimed invention [of the '640 patent] was made, . . . subject to an *obligation of assignment* to the same person." 35 U.S.C. § 103(c)(1) (emphasis added).

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 1–28 obvious at the time the invention was made under § 103(a). Pet. 70–88.

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 as prior art to the claims at issue because

> The subject matter in *Olson* and the claimed invention in the '640 Patent were, at the time the claimed invention was made, subject to an obligation of assignment to the same person. Indeed, contemporaneous statements in the file history of the

'640 Patent, dated August 2008, confirms the subject matter of *Olson* and the claimed invention in the '640 patent were assigned to the same assignee.

PO Resp. 55. Patent Owner reproduces page 268 of Exhibit 1003 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. 1003, 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 4 fails at least because *Olson* is not prior art to the '640 Patent." PO Resp. 55.

Mr. Baratta and Mr. Olson are the inventors listed on the face of the '640 patent. Ex. 1001, (76). 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."[15] 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. 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 22–23. 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. 1034, 10:7–8, 10:13–17, 28:18–20, 27:22–31:1, 31:24–35:6, 36:5–25, 47:1–20, 57:11–16). During his deposition, Mr. Olson testified, for example, that any agreement "was kind of a handshake relationship" and "[n]othing was formalized." Ex. 1034, 10:7–8. And when Mr. Olson was asked if the alleged agreement

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[15] 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).

"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 24–25 (The totality of Patent Owner's Sur-Reply on the issue being: "As provided in the POR, Ground 4 fails because *Olson* is not proper prior art to the '640 Patent under 35 U.S.C. §103(c) as explained in the POR. POR, 54–55. Further, the testimony of Mr. Olson and Mr. Ackerman, the prosecuting attorney, in this proceeding confirm that both Olson and the claimed invention of the '640 Patent were subject to an obligation to assign to the same person.").

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. 1034, 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. 55 (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 '640 Patent were subject to an obligation to assign to the same person." PO Sur-Reply 24–25.

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. 1033, 105:8–12), Mr. Ackerman responded that was correct (*id.* at 105:25–106:5). In other words, 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. 1033, 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 Mr. Ackerman's 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 '640 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 '640 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
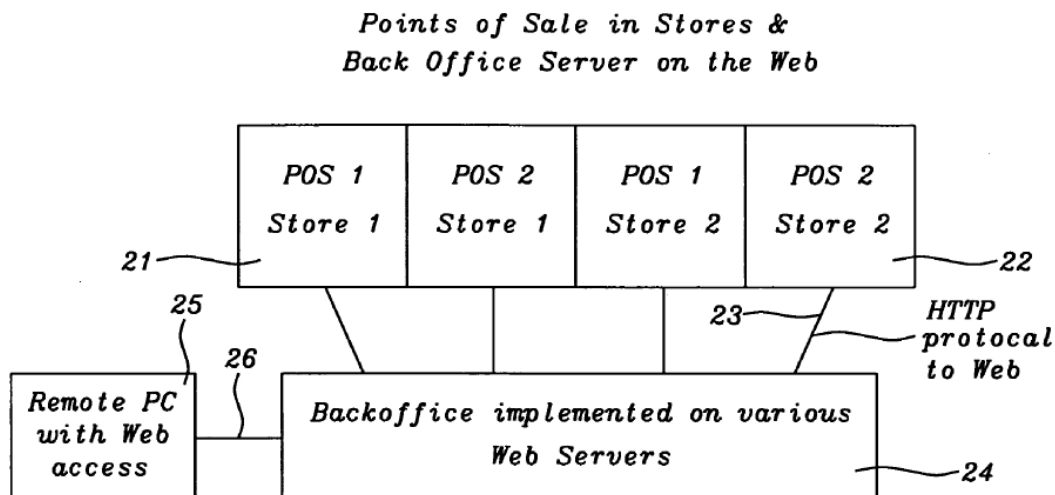
"F[igure] 1 shows a high level diagram of this invention" (*id.* ¶ 13), which includes a web-based back-office system (*id.* ¶ 4). Olson explains that "point of sale (POS) terminal such as POS 21 represents a single cash register in a store, retail location, or business location" and "POS 21 is in STORE 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.
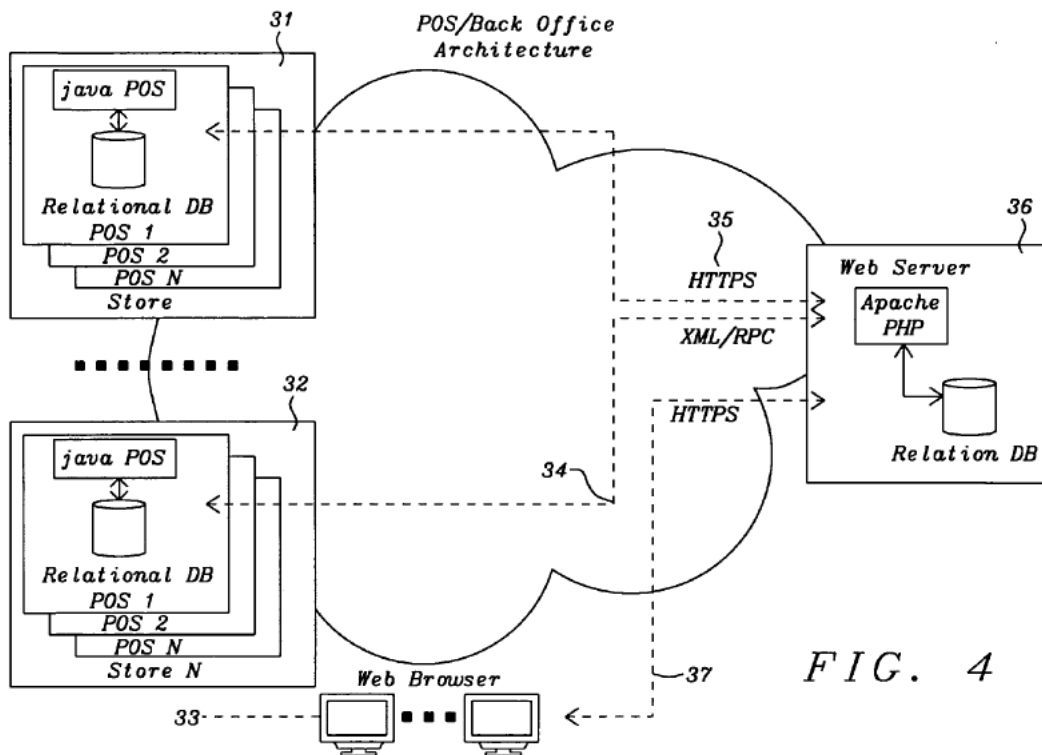
FIG. 4

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." *Id.* ¶ 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 15

Petitioner contends that "*Woycik* discloses point of sale builder software" (Pet. 70), 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.'" *Id.* 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 '640 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. 70–79, 88; *see also* 23 (noting that Patent Owner fails to identify missing limitations in the asserted references); PO Sur-Reply 23–25 (providing no further response as to any missing limitations in the asserted references).

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. 71. That is, the modification 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 70–72, 77–78. 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. 59–60); (2) Olson and Woycik do not teach a point of sale builder that runs on a remote server (*id.* at 60–62); and (3) Olson and Woycik do not teach a subscription service or software hosted on vendor's remote servers (*id.* at 63–64).

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[16]] can be modified with the Flash POS system of Woycik." PO Resp. 59. 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.* at 60.

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

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[16] Patent Owner appears to mistakenly reference Manno.

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; and (2) 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 23–24.

Petitioner provides unrebutted testimony from its expert, Mr. Gray. *See, e.g.*, Pet. 72 (citing Ex. 1002 ¶ 245). 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 that runs on a remote server*

We agree with Petitioner that Woycik teaches point of sale builder software that runs on a remote server 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. 60) 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. 61) 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] the POS builder software disclosed in *Woycik* to run on [Olson's] BO server." Pet. 71; *see also* Pet. Reply 24.

c. subscription service/software hosted on vendor's remote servers

Patent Owner's contention that Olson and Woycik do not teach a subscription service or software hosted on vendor's remote servers is difficult to understand. Petitioner relies on Olson, not Woycik, as teaching this feature. *See* Pet. 78–79; Pet. Reply 25.

Petitioner notes:

> PO acknowledges "*Olson* alludes to providing back office software via a SAAS distribution model," but asserts "providing [] BO software under a SAAS model . . . is entirely different than providing 'point of sale builder software that runs on said web server' under a SAAS model." *Id.* There is no meaningful difference—*Olson*'s SAAS disclosure is near verbatim to that of the '640 Patent. EX1001, 5:58-63; EX1006, [0027].

Pet. Reply 25. Petitioner is correct, and Patent Owner does nothing to rebut Petitioner's explanation. *See* PO Sur-Reply 23–25. We reproduce the discussion of the subscription service/vendor hosting features in Olson and the '640 patent 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). As Petitioner notes, the '640 patent provides an almost identical explanation of the subscription service/vendor hosting features:

> 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, 5:58–63 (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 15, and significantly outweighs the weak evidence of non-obviousness discussed above.

4. Claims 2–14 and 16–28

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. 64–65. 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 2–14 and 16–28, and significantly outweighs the weak evidence of non-obviousness discussed above.

G. Manno Challenge

Petitioner asserts that claims 1–28 are unpatentable under 35 U.S.C. § 103 as obvious over Manno in view of the knowledge of a person of ordinary skill in the art. Pet. 16–39. Because, as explained above, Petitioner has established by a preponderance of the evidence that claims 1–28 are unpatentable in view of each of the other three grounds presented, we do not reach the challenge based on Manno, alone.

H. Alleged Constitutional Violation

Patent Owner contends that "the '640 Patent has been litigated and found by a jury to be not invalid, specifically over obviousness arguments based on Woycik." PO Resp. 29. 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 29–30, 51–52, 56. 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 '640 patent in view of Woycik. *See* Ex. 2008 (Jury Verdict Form), 5 (stating that NCR, the defendant in the NCR Litigation, did not prove by clear and convincing evidence that certain claims of the '640 patent are invalid). That determination was not that the '640 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[17]

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

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–28 on the '640 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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[17] As noted above, we do not reach the challenge based on Manno.

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