

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

BILLJCO LLC,
Patent Owner.

IPR2022-00420
Patent 10,477,994 B2

Before THU A. DANG, LYNNE H. BROWNE, and GARTH D. BAER,
Administrative Patent Judges.

BAER, *Administrative Patent Judge.*

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

I. INTRODUCTION

A. BACKGROUND

Apple Inc. (“Petitioner”)¹ filed a Petition (Paper 4, “Pet.”) requesting an *inter partes* review of claims 1–3, 6, 8–10, 13–16, and 19 (“the challenged claims”) of U.S. Patent No. 10,477,994 B2 (Ex. 1001, “the ’994 patent”). BillJCo, LLC (“Patent Owner”) filed a Preliminary Response (Paper 8) to the Petition. Pursuant to 35 U.S.C. § 314, we instituted this *inter partes* review as to all of the challenged claims and all grounds raised in the Petition. Paper 17 (“Institution Dec.”).

Following institution, Patent Owner filed a Response. Paper 30 (“PO Resp.”). Petitioner filed a Reply to Patent Owner’s Response (Paper 35, “Pet. Reply”), and Patent Owner filed a Sur-reply (Paper 37, “PO Sur-reply”). On April 14, 2023, we held an oral hearing. A transcript of the hearing is included in the record. Paper 41.

We have jurisdiction under 35 U.S.C. § 6. This decision is a Final Written Decision issued pursuant to 35 U.S.C. § 318(a). For the reasons we discuss below, we determine that Petitioner has proven by a preponderance of the evidence that claims 1–3, 6, 8–10, 13–16, and 19 are unpatentable.

B. RELATED PROCEEDINGS

The parties indicate that the ’994 patent is the subject of the following district court cases: *BillJCo, LLC v. Apple Inc.*, No. 6:21-cv-00528 (W.D. Tex.); *BillJCo, LLC v. Cisco Systems, Inc.*, No. 2:21-cv-00181 (E.D. Tex.)

¹ Cisco Systems, Inc., Hewlett Packard Enterprise Co., and Aruba Networks, LLC were originally parties to this proceeding, but have now been terminated. Paper 14; Paper 26.

(“ED Litigation”); and *BillJCo, LLC v. Hewlett Packard Enterprise Company*, No. 2:21-cv-00183 (E.D. Tex.). Pet. 4; Paper 6, 2.

C. REAL PARTY IN INTEREST

The parties identify themselves as the real parties in interest. Pet. 4; Paper 6, 2.

D. THE '994 PATENT

The '994 patent relates to “location based exchanges of data facilitating distributed locational applications.” Ex. 1001, code (54). Specifically, “[l]ocation based exchanges of data between distributed mobile data processing systems enable location based features and functionality in a peer to peer manner.” *Id.* at 1:48–51. Figure 1B is reproduced below.

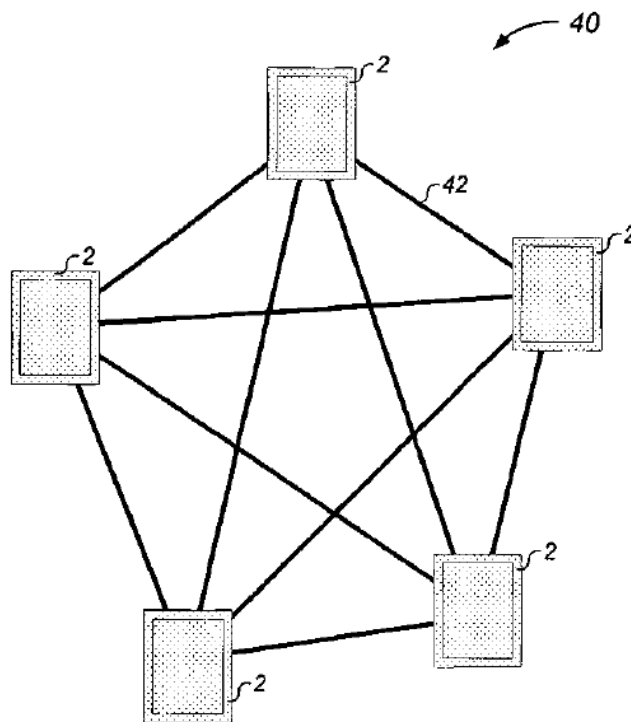


Figure 1B depicts “a Location Based eXchanges (LBX) architectur[e].” *Id.* at 18:65–66. Figure 1B includes a wireless network 40 of five mobile devices (MSs). *Id.* at 32:57–58. According to the '994 patent “[a]n MS 2

communicates with other MSs without requiring a service for interaction.”
Id. at 32:55–56.

E. CHALLENGED CLAIMS

Of the challenged claims, claims 1, 8, and 14 are independent.²

Claim 1 is reproduced below:

1. A beaconing data processing system, comprising:
 - one or more processors;
 - a Bluetooth communications interface; and
 - a memory coupled to the one or more processors, wherein the one or more processors access the memory and control operations of the beaconing data processing system, the operations comprising:
 - periodically beaconing outbound a broadcast unidirectional wireless data record communicated through the Bluetooth communications interface to serve as a physical location reference contributing to physical location determination processing of one or more user carried mobile data processing systems in a Bluetooth wave spectrum range vicinity of the beaconing data processing system, the beaconing data processing system:
 - not soliciting an inbound communication to the beaconing data processing system from the one or more user carried mobile data processing systems in response to a receipt of the broadcast unidirectional wireless data record in the one or more user carried mobile data processing systems, and
 - not configured to process inbound communications resulting from the receipt of the broadcast unidirectional wireless data record in the one or more user carried mobile data processing systems, the broadcast unidirectional wireless data record

² Claim 8 is a method and claim 14 is a computer-readable media that otherwise both parallel the system recited in claim 1. *See* Ex. 1001, 448:28–62, 449:36–67, 450:27–59.

communicated through the Bluetooth communications interface to serve as the physical location reference including:
no physical location coordinates of the beaconing data processing system,
a data field containing a signal strength of the beaconing data processing system, and
application identifier data stored in the memory.

Ex. 1001, 448:28–62.

F. ASSERTED GROUNDS OF UNPATENTABILITY

Petitioner asserts the following grounds of unpatentability. Pet. 15.

Claims Challenged	35 U.S.C. § ³	References/Basis
1, 2, 6, 8, 9, 13–15, 19	103	Wrappe ⁴ , Philips ⁵
3, 10, 16	103	Wrappe, Philips, Weiser ⁶
1, 2, 6, 8–10, 13–16, 19	103	Wrappe, Philips, Evans ⁷
3, 10, 16	103	Wrappe, Philips, Weiser, Evans

II. PRELIMINARY MATTERS

A. LEVEL OF ORDINARY SKILL

Petitioner argues that a person of ordinary skill in the art would have had “a bachelor’s degree in computer science, computer engineering, or an equivalent, as well as two years of professional experience, and a POSITA would have had a working knowledge of hardware and software for location

³ Because the challenged claims of the challenged patent have an effective filing date before March 16, 2013, we apply the pre-AIA (“America Invents Act”) version of § 103. Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 285–88 (2011).

⁴ WO 2005/106523 A1, published Nov. 10, 2005 (Ex. 1005, “Wrappe”).

⁵ WO 02/15601 A2, published Feb. 21, 2002 (Ex. 1013, “Philips”).

⁶ U.S. 2007/0136132 A1, published June 14, 2007 (Ex. 1016, “Weiser”).

⁷ U.S. 6,327,535 B1, issued Dec. 4, 2001 (Ex. 1007, “Evans”).

tracking of mobile devices,” and that “[l]ack of work experience can be remedied by additional education and vice versa.” Pet. 16 (citing Ex. 1004 ¶ 54). Patent Owner does not contest Petitioner’s description. PO Resp. 6. We adopt Petitioner’s description as it is consistent with the prior art and patent specification before us and supported by credible expert testimony. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (prior art itself may reflect an appropriate level of skill).

B. CLAIM CONSTRUCTION

Neither party proposes an express construction for any claim terms. Pet. 17; PO Resp. 10–11. We agree with the parties that no claim terms require express construction for purposes of this Decision. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (“we need only construe 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))).

C. SUMMARY OF PRIMARY ASSERTED PRIOR ART REFERENCES

1. Wrappe (Ex. 1005)

Petitioner relies primarily on Wrappe. *See* Pet. 30–46. Wrappe discloses “microcell beacons” that use wireless data communications like Bluetooth or WiFi “to broadcast to mobile stations location information and/or identification information.” Ex. 1005, code (57). Figure 5 is reproduced below.

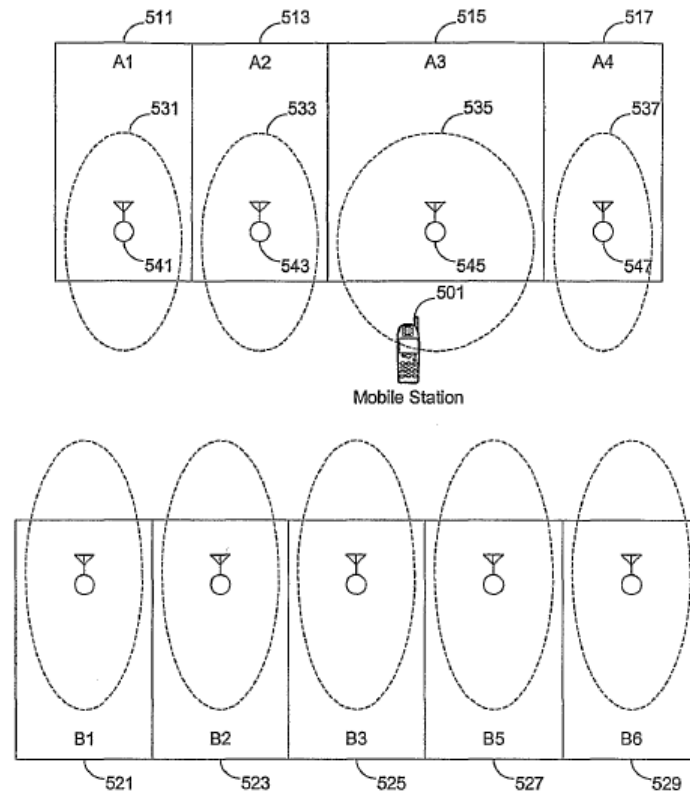


Fig. 5

Figure 5 depicts “using microcell beacons according to one embodiment of the present invention.” *Id.* ¶ 46. In addition to Mobile Station 501, Figure 5 depicts “stores and shops (e.g., 511–517, 521–529)” and “microcell beacon station[s] (e.g., 541–547).” *Id.* ¶¶ 46, 47. When the mobile station is within the microcell beacon’s range, “information related to the store (e.g., electronic coupons, special of the day, a web page of the store, or other information that the user of the mobile station 501 may be interested) can be transmitted to the mobile station.” *Id.* ¶ 47.

2. Philips (Ex. 1013)

Petitioner relies on Philips for teaching broadcasting application identification data from beacons to mobile devices. *See* Pet. 45 (citing Ex. 1013, 7:15–17, 7:29–8:3, 8:4–27, Fig. 7). According to Philips, transmissions from application-specific beacons “contain an application specific identifier,” as well as “application specific data.” Ex. 1013, 8:2–3.

III. UNPATENTABILITY ANALYSIS

A. OBVIOUSNESS OF CLAIM 1

Petitioner argues that claim 1 would have been obvious over Wrappe and Philips. Pet. 26–46. For the reasons explained below, we find Petitioner has shown by a preponderance of evidence that claim 1 would have been obvious over Wrappe and Philips.

1. “no physical location coordinates”

Claim 1 requires a “broadcast unidirectional wireless data record . . . including: no physical location coordinates of the beaconing data processing system.” Ex. 1001, 448:53–59. Petitioner explains that Wrappe teaches this feature because Wrappe includes embodiments in which the beacon stations broadcast site identification information, rather than physical location. Pet. 42 (citing Ex. 1005 ¶¶ 13, 46, 49, 51). As Petitioner notes, Wrappe teaches using this identity information “to look up position information (e.g., the position coordinates of the transmitter or altitude information) from a database.” *Id.* (quoting Ex. 1005 ¶ 51).

Patent Owner contends that Petitioner’s unpatentability challenge fails because “[t]hose embodiments that the Petition contends propose use without physical location coordinates are used in a hybrid environment that utilizes

GPS, which always coordinates physical location.” PO Resp. 12. We disagree with Patent Owner’s argument.

The claim limitation at issue requires a broadcast “record” that does not include physical location coordinates. *See, e.g.*, Ex. 1001, 448:53–59. Petitioner relies on Wrappe’s signal that is periodically sent via Bluetooth from its microcell beacon to a mobile station to teach the claimed record. *See* Pet. 37–39. Although Wrappe further teaches that its mobile station “receives SPS (Satellite Position System) signals (e.g., GPS signals),” Ex. 1005 ¶ 51, that does not undermine Petitioner’s showing because Petitioner does not rely on Wrappe’s GPS signal for the claimed record, and Patent Owner points to nothing in the challenged claims that otherwise precludes all use of GPS, outside of the claimed broadcast record.

Based on Petitioner’s analysis as outlined above, we agree with Petitioner that Wrappe teaches a unidirectional wireless data record including no physical location coordinates of the beaconing data processing system as claim 1 requires.

2. “periodically beaconing . . . signal strength”

Claim 1 requires “periodically beaconing . . . a data field containing a signal strength of the beaconing data processing system.” Ex. 1001, 448:35, 60–61. Petitioner asserts Wrappe teaches this feature because Wrappe includes an embodiment in which “the microcell beacon may also ***broadcast the transmission strength level*** so that a range to the microcell beacon can be estimated from the transmission strength level and the received signal strength level at the mobile station.” Pet. 43. (quoting Ex. 1005 ¶ 43). Further, Petitioner explains, “Wrappe’s beacons include a control circuit that ‘controls transmitter and modulator 411 to broadcast identification

information 421 *periodically*.” *Id.* at 37 (quoting Ex. 1005 ¶ 50). Petitioner explains also that a skilled artisan would have found it obvious “to include the signal strength data broadcast in a field of Wrappe’s wireless data record, because including such data in a record associated with the beacon would have maintained structure to the data allowing the mobile device to associate the signal strength data, the identification data, and any other data from the beacon with a specific beacon.” *Id.* at 43.

Patent Owner asserts that Wrappe does not disclose periodically beaconing signal strength because Wrappe’s periodic transmission applies only to identification information, but not to signal strength. PO Resp. 13–14. According to Patent Owner, “[t]here is no evidence that the transmission strength level is also broadcast periodically.” *Id.* at 14.

We disagree with Patent Owner’s argument. First, we agree with Petitioner that a skilled artisan would read Wrappe’s periodic-transmission teaching as applying to its embodiment in which signal strength is used to determine location. Pet. Reply 5. Wrappe addresses not just a one-time location determination but determining “the precise *locations* of the mobile station.” Ex. 1005 ¶ 35 (emphasis added). Thus, when Wrappe later teaches determining location by signal strength (*see id.* ¶ 43), we agree with Petitioner that a skilled artisan would understand that determination to be periodic, as opposed to just one time. Pet. Reply 5. Further, because Wrappe’s system is designed to determine location information for mobile (i.e., moving) stations, it makes far more sense to determine locations periodically, rather than just once.

We also disagree with Patent Owner’s argument because, even if Wrappe’s periodic-transmission and signal-strength teachings were separate,

Petitioner explained why it would have been obvious to combine those two embodiments: so that one could associate signal strength with a specific beacon. *See* Pet. 43 (citing Ex. 1004 ¶ 122). Given Petitioner’s analysis, Petitioner has articulated sufficient reasoning with rational underpinning to support its assertion that it would have been obvious to combine Wrappe’s periodic identification information broadcast with its signal strength broadcast. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418, 419 (2007). In that combination, signal strength would be transmitted periodically. For these reasons and given the Petition’s analysis outlined above, we agree with Petitioner that Wrappe teaches or suggests “periodically beaconing . . . a data field containing a signal strength of the beaconing data processing system” as claim 1 requires.

3. “application identifier data”

Claim 1 further requires that the broadcast wireless data record includes “application identifier data” stored in memory. Ex. 1001, 448:62. Petitioner relies on Philips for teaching the application-identifier feature. *See* Pet. 45. Specifically, Petitioner explains that “Philips discloses techniques for broadcasting application IDs from beacons to allow the mobile device to identify an appropriate application for interpreting and providing the data to the user.” *Id.* at 45 (citing Ex. 1013, 7:15–17, 7:29–8:3, 8:4–27, Fig. 7).

Although Patent Owner does not contest that Philips teaches broadcasting application identifier data, Patent Owner asserts Petitioner failed to provide a sufficient reason why one skilled in the art would have been motivated to include that feature in Wrappe’s broadcast. PO Resp. 16. Patent Owner also asserts that a skilled artisan would not have combined Wrappe’s and Philips’s teachings because Wrappe addresses unidirectional

wireless communications, whereas Philips addresses two-way communications. *Id.* at 16–17.

We disagree with Patent Owner’s arguments. To the extent Patent Owner is asserting Wrappe and Philips are non-analogous art, clearly both are from the same field of endeavor as the ’994 patent because all three relate to providing beacons data over short-range wireless links to mobile devices. *See* Ex. 1001, code (57); Ex. 1005, code (57); Ex. 1013, 1:1–19. Thus, Wrappe and Philips are analogous to the ’994 patent. *See In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004). In addition, the Petition explains sufficiently why one skilled in the art would have been motivated to include Philip’s application identifier data in Wrappe’s broadcast signal. *See* Pet. 26–30. Specifically, Petitioner explains that one skilled in the art would have been motivated to include Philip’s application identifier to “allow[] for the automatic selection of the correct application to convey the beacons data to the user in a fast and user-friendly manner.” *Id.* at 29 (citing Ex. 1004 ¶ 152). Petitioner further explains that its proposed combination amounts to “[t]he combination of familiar elements according to known methods,” and would have yielded ‘predictable results.’” *Id.* at 26 (citing *KSR*, 550 U.S. at 416).

In short, we agree with Petitioner that Philips teaches beaconing the application identifier data stored in memory, as claim 1 requires. In addition, given Petitioner’s analysis outlined above, Petitioner has articulated sufficient reasoning with rational underpinning to support the legal conclusion that its proffered combination of Wrappe and Philips would have been obvious to one skilled in the art. *See KSR*, 550 U.S. at 418.

4. Additional Undisputed Elements in Claim 1

Petitioner asserts that Wrappe teaches the additional, undisputed elements in claim 1. Specifically, Petitioner corresponds Wrappe’s “[c]ontrol circuit 415” to claim 1’s processor. Pet. 32 (citing Ex. 1005 ¶ 50, Fig. 4). Petitioner explains that Wrappe teaches claim 1’s Bluetooth communications interface “because Wrappe’s beacons ‘are based on low cost, mass market electronics for wireless local area data communication,’ such as Bluetooth.” *Id.* at 34 (citing Ex. 1005, Abstract, ¶¶ 10, 29). Petitioner further corresponds Wrappe’s “memory 417” to claim 1’s “memory coupled to one or more processors.” *Id.* at 34 (citing Ex. 1005, ¶¶ 49–50, Fig. 4).

Petitioner further explains that Wrappe discloses periodically beaconing outbound a broadcast unidirectional wireless data record because Wrappe teaches “broadcast[ing] identification information 421 *periodically*.” *Id.* at 37 (quoting Ex. 1005, ¶ 50). Further, Wrappe’s broadcast signal

is transmitted in one direction from the beaconing mobile device making it unidirectional, (2) is beacons over the air, such as over Bluetooth, making it wireless, (3) includes the “identification information” such as a store ID and “transmission strength level,” which are data, and (4) is a collection of data that is organized into a group of data for transmission and processing when received, making it a record.”

Id. at 38.

Petitioner explains that Wrappe’s system also includes the claimed inability to solicit or process inbound communications because “Wrappe’s beacons lack receiving functionality” and thus would not solicit or process inbound communications. *Id.* at 41 (citing Ex. 1004 ¶¶ 112–114; 1005, Abstract).

Petitioner explains that Wrappe teaches broadcasting “no physical location coordinates of the beaconing data processing system” as claim 1 requires because Wrappe includes an embodiment that sends data to identify a site and then uses a database to look up the site’s location, rather than sending physical location coordinates. *See id.* at 42 (citing Ex. 1005 ¶ 51).

Last, Petitioner explains that Wrappe discloses broadcasting “a data field containing a signal strength” as claim 1 requires because Wrappe teaches that “the microcell beacon may also *broadcast* the transmission strength level so that a range to the microcell beacon can be estimated from the transmission strength level and the received signal strength level at the mobile station.” *Id.* at 43 (quoting Ex. 1005, ¶ 43).

Other than the arguments addressed above, Patent Owner does not additionally challenge Petitioner’s showing. We have reviewed Petitioner’s arguments and evidence and, based on Petitioner’s analysis outlined above, we agree with Petitioner that Wrappe and Phillips teach each element in claim 1.

5. Objective Indicia of Nonobviousness

Patent Owner asserts that objective evidence of nonobviousness demonstrates that the challenged claims were not obvious. *See* PO Resp. 17–26. We address Patent Owner’s arguments below.

a. Copying

Patent Owner suggests that evidence of copying supports that the challenged claims are not obvious. PO Resp. 18–23. According to Patent Owner, we should infer copying based on Petitioner’s access to the ’994 patent and Petitioner’s release of products that embody the challenged claims. *Id.* (citing *Liqwd, Inc. v. L’Oreal USA, Inc.*, 941 F.3d 1133, 1138

(Fed. Cir. 2019). As the court in *Liqwd* recognized, access to a patent coupled with circumstantial evidence showing changes to a competitor's design can be sufficient to support copying. *Liqwd, Inc. v. L'Oreal USA, Inc.*, 941 F.3d 1133, 1138 (Fed. Cir. 2019). This may happen when, for example, “the defendant’s engineering design team had settled on one design and ‘suddenly changed direction’ to adopt a feature disclosed in the patent as soon as it issued.” *Id.* (quoting *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1328 (Fed. Cir. 2009)).

Here, we find the circumstantial evidence is not sufficient to suggest that Petitioner copied the patented technology. As Petitioner notes, the only alleged access involves unsolicited communications between 2010 and 2014 sent to Petitioner’s agent seeking to monetize Patent Owner’s then-pending patent applications. *See* Pet. Reply 11–12; PO Resp. 19–20. Patent Owner further alleges that “[i]n or around June 2013,” Petitioner “publicly announced its rollout of [] iOS7,” which Patent Owner alleges embodies the challenged claims. PO Resp. 20–23. These general allegations are not sufficient to infer that Petitioner changed its design to incorporate the patented features based on its access to Patent Owner’s technology. *See Liqwd*, 941 F.3d at 1138 (noting the “primary concern . . . to avoid treating mere infringement as copying simply because the claims of a patent arguably read on a competitor product”).

b. Commercial Success

Patent Owner suggests that evidence of commercial success further supports that the challenged claims are not obvious. Specifically, according to Patent Owner, the claimed features were commercially successful because “Petitioner touted the claimed features of the invention in connection with

products using the iBeacon technology covered by the '994 patent.” PO Resp. 23. In addition, Patent Owner asserts that several companies “have entered into licensing agreement[s] pertaining to the patented technology covered by the '994 patent.” *Id.* at 24.

We find Patent Owner’s evidence unconvincing for several reasons. First, the alleged touting relates to the products’ functionality, not their commercial success. *See* PO Resp. 23–24 (citing Ex. 2023). In addition, Patent Owner’s licensing is unconvincing because, as Petitioner notes, the asserted licenses address some 30+ patents, only one of which is the '994 patent, and Patent Owner “failed to provide any evidence regarding the weight or importance of the '994 Patent to these agreements.” Pet. Reply 15.

In sum, we have reviewed Patent Owner’s arguments and evidence regarding objective evidence of non-obviousness and, for the reasons outlined above, do not find them persuasive enough to outweigh Petitioner’s evidence that the challenged claims would have been obvious.

6. Claim 1 Conclusion

Other than the arguments addressed above, Patent Owner does not additionally challenge Petitioner’s showing. We have reviewed Petitioner’s arguments and evidence and, based on Petitioner’s analysis outlined above, we find that Petitioner has shown by a preponderance of evidence that claim 1 would have been obvious over Wrappe and Philips.

B. OBVIOUSNESS OF CLAIMS 2, 6, 8, 9, 13–15, AND 19

Petitioner argues that claims 2, 6, 8, 9, 13–15, and 19 would have been obvious over Wrappe and Philips. Pet. 26–51. For the reasons explained below, we find Petitioner has shown by a preponderance of evidence that

claims 2, 6, 8, 9, 13–15, and 19 would have been obvious over Wrappe and Philips.

1. Independent Claims 8 and 14

Independent claims 8 and 14 recite limitations similar to those discussed above for claim 1. Other than the arguments discussed above for claim 1, Patent Owner does not additionally challenge Petitioner’s obviousness showing for independent claims 8 and 14. Having reviewed the arguments and weighed the evidence, we find that Petitioner has shown by a preponderance of evidence that claims 8 and 14 would have been obvious over Wrappe and Philips.

2. Dependent Claims 2, 9, and 15

Dependent claims 2, 9, and 15 additionally require that “the application identifier data stored in the memory is configured in the beaconing data processing system to match a configured location based condition in the one or more user carried mobile data processing systems.” Ex. 1001, 448:64–67, 450:1–5; 450:61–64. Petitioner presents evidence that Philips teaches this additional feature because “Philips’s beacons ‘are networked to form a local area network to provide a tailored set of applications covering a given geographical area, the premises of a museum for instance.’” Pet. 47 (quoting Ex. 1013, 6:27–30). Petitioner also presents evidence that one skilled in the art would have included this feature in Wrappe because doing so “would have allowed Wrappe’s mobile devices to filter data according to preferences including ‘context’ like location and provide only data that the user was interested in seeing.” *Id.* at 48 (citing Ex. 1004 ¶ 136). Other than the arguments discussed above for claim 1, Patent Owner does not additionally challenge Petitioner’s obviousness showing for claims 2, 9, and 15. Having

reviewed the arguments and weighed the evidence, we find that Petitioner has shown by a preponderance of evidence that claims 2, 9, and 15 would have been obvious over Wrappe and Philips.

3. Dependent Claims 6, 13, and 19

Dependent claims 6, 13, and 19 additionally require that “the beaconing data processing system is a mobile data processing system.” Ex. 1001, 449:20–22, 450:25–26, 451:18–20. Petitioner presents evidence that Wrappe’s beacons are mobile “because Wrappe describes the ‘placement . . . of the microcell beacons are adjusted so that the coverage of the dominant beacon signals substantially covers the store.’” Pet. 49 (quoting Ex. 1005 ¶ 46). Other than the arguments discussed above for claim 1, Patent Owner does not additionally challenge Petitioner’s obviousness showing for claims 6, 13, and 15. Having reviewed the arguments and weighed the evidence, we find that Petitioner has shown by a preponderance of the evidence that claims 6, 13, and 15 would have been obvious over Wrappe and Philips.

C. OBVIOUSNESS OF CLAIMS 3, 10, AND 16

Petitioner argues that claims 3, 10, and 16 would have been obvious over Wrappe, Philips, and Weiser. Pet. 51–56. Specifically, Petitioner explains that Weiser teaches the additional feature in dependent claims 3, 10, and 16—i.e., the application identifier is configured to match a configured arrival or departure condition—because Weiser teaches transmitting applications software “when the subscriber enters the mall.” *Id.* at 55–56 (quoting Ex. 1016 ¶ 332); *see* Ex. 1001, 449:2–5, 450:6–11, 450:65–451:3. Further, Petitioner explains, a skilled artisan would have included this feature in the combined Wrappe/Philips system because doing so would have amounted to

the combination of familiar elements (e.g., application identifiers stored in beacons and transmitted in wireless data records as taught by the combination of Wrappe and Philips, and applications associated with specific commercial locations as in Weiser), according to known methods (i.e., storing such identifiers in memory on the mobile device and including them in beacons messages as taught in Philips), to yield predictable results (i.e., a location-specific application for, e.g., a mall, that displays data about stores or locations within a commercial site automatically to users of mobile devices).

Pet. 53–54 (citing Ex. 1004 ¶ 169).

Other than the arguments discussed above, Patent Owner does not additionally challenge Petitioner’s showing. Having reviewed the arguments and weighed the evidence, we find that Petitioner has shown by a preponderance of the evidence that claims 3, 10, and 16 would have been obvious over Wrappe, Philips, and Weiser.

D. ALTERNATIVE OBVIOUSNESS GROUNDS

Petitioner adds an additional reference, Evans, for alternative grounds challenging claims 1–3, 6, 8–10, 13–16, and 19. Pet. 56–60. Because Petitioner has shown these same claims would have been obvious without adding Evans, we do not address these alternative grounds.

IV. CONCLUSION

For the foregoing reasons, we determine Petitioner has demonstrated by a preponderance of the evidence that claims 1–3, 6, 8–10, 13–16, and 19 of the ’994 patent are unpatentable.⁸ Our conclusions are summarized in the following table.

⁸ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this

Claim(s)	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not shown Unpatentable
1, 2, 6, 8, 9, 13–15, 19	103	Wrappe, Philips	1, 2, 6, 8, 9, 13–15, 19	
3, 10, 16	103	Wrappe, Philips, Weiser	3, 10, 16	
1, 2, 6, 8–10, 13–16, 19	103	Wrappe, Philips, Evans ⁹		
3, 10, 16	103	Wrappe, Philips, Weiser, Evans ¹⁰		
Overall Outcome			1–3, 6, 8–10, 13–16, 19	

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–3, 6, 8–10, 13–16, and 19 of the '994 patent are unpatentable; and

decision, we draw Patent Owner's attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. § 42.8(a)(3), (b)(2).

⁹ We do not reach this ground because it would not change the outcome of this case.

¹⁰ We do not reach this ground because it would not change the outcome of this case.

FURTHER ORDERED that, because this is a Final Written Decision, parties to the 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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