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Paper No. 9.
Entered: October 1, 2024

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TIKTOK INC.,
Petitioner,

v.

CELLSPIN SOFT, INC.,
Patent Owner.

IPR2024-00767
Patent 11,659,381 B2

Before GREGG I. ANDERSON, CYNTHIA M. HARDMAN, and MICHAEL A. VALEK, *Administrative Patent Judges*.

HARDMAN, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Petitioner TikTok Inc. requests *inter partes* review of claims 1–16 of U.S. Patent No. 11,659,381 B2 ("the '381 patent," Ex. 1007). Paper 2 ("Pet."). Patent Owner Cellspin Soft, Inc. filed a Preliminary Response. Paper 6 ("Prelim. Resp."). With our authorization, Petitioner filed a Reply to Patent Owner's Preliminary Response. Paper 7 ("Prelim. Reply"). Although authorized to do so, Patent Owner did not file a Sur-Reply to Petitioner's Preliminary Reply.

We have authority under 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted "unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." After considering the briefing and cited evidence of record, we institute an *inter partes* review.

The following preliminary findings of fact and conclusions of law are made solely for determining whether to institute review. Any final decision will be based on the full trial record.

A. Real Parties in Interest

Petitioner identifies itself (TikTok Inc.) and Bytedance Inc., Bytedance Ltd., Bytedance Pte Ltd., and TikTok Pte Ltd. as real parties in interest. Pet. 79. Patent Owner identifies itself (Cellspin Soft, Inc.) as the real party in interest. Paper 4 (Patent Owner Mandatory Notices) 2.

B. Related Matters

The parties identify as related the following district court action involving the '381 patent: *CellSpin Soft, Inc. v. ByteDance, Ltd. et al.*, No. 2:23-cv-496 (E.D. Tex.) ("Parallel Litigation"). Pet. 79; Paper 4, 2.

Petitioner states that "[t]he '381 patent is in the same family" as six other patents for which it has concurrently sought *inter partes* review. Pet. 79. These related patents are the subject of IPR2024-00757, IPR2024-00759, IPR2024-00760, IPR2024-00767, IPR2024-00768, IPR2024-00769, and IPR2024-00770. Petitioner also notes that the '381 patent is "in the same family as U.S. Pat. No. 9,258,698, which was the subject of IPR2019-00127, IPR2019-00131, IPR2019-01107, and IPR2019-01108." *Id.*

Finally, Petitioner notes related U.S. Patent Application No. 18/193,686, which "is currently pending before the Patent Office." *Id.*

We further note that the '381 patent is subject to a pending *ex parte* reexamination, 90/019,507, filed by Unified Patents, LLC.

C. The '381 Patent (Ex. 1007)

The '381 patent, titled "Automatic Multimedia Upload for Publishing Data and Multimedia Content," issued on May 23, 2023, from U.S. Application 17/542,373, filed on December 4, 2021, and claims priority through a series of continuation applications, the earliest of which (U.S. Application 12/333,303, the "'303 application") was filed on December 11, 2008. Ex. 1007, codes (21), (22), (45), (54), (63). The '381 patent also claims priority to a provisional application filed on December 28, 2007. *Id.* at code (60).

The '381 patent relates to "pairing a digital data capture device in conjunction with a mobile device for automatically publishing data and multimedia content on one or more websites simultaneously." *Id.* at 1:58–62. Figure 2, reproduced below, illustrates a system for using a digital data capture device (such as a camera) with a Bluetooth enabled mobile device (such as a mobile phone) for publishing data and multimedia content on one

or more websites automatically or with minimal user intervention. *Id.* at 3:38–42.

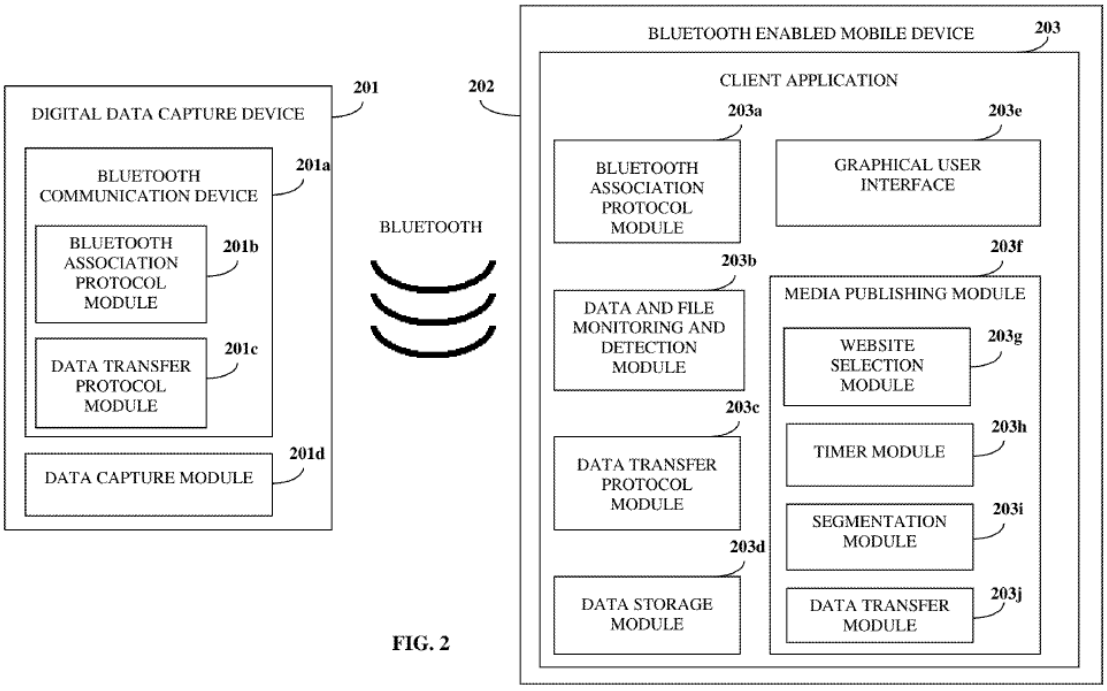

FIG. 2

Figure 2 above illustrates a system including digital data capture device 201, Bluetooth enabled mobile device 202, and client application 203 provided on Bluetooth-enabled mobile device 202. *Id.* at 3:67–4:2, 6:33–51, 10:21–22. A Bluetooth connection is established between digital data capture device 201 and mobile device 202. *Id.*

Figure 1, reproduced below, illustrates a method of using digital data capture device 201 in conjunction with mobile device 202 for publishing data and multimedia content on one or more websites automatically or with minimal user intervention. *Id.* at 3:33–37.

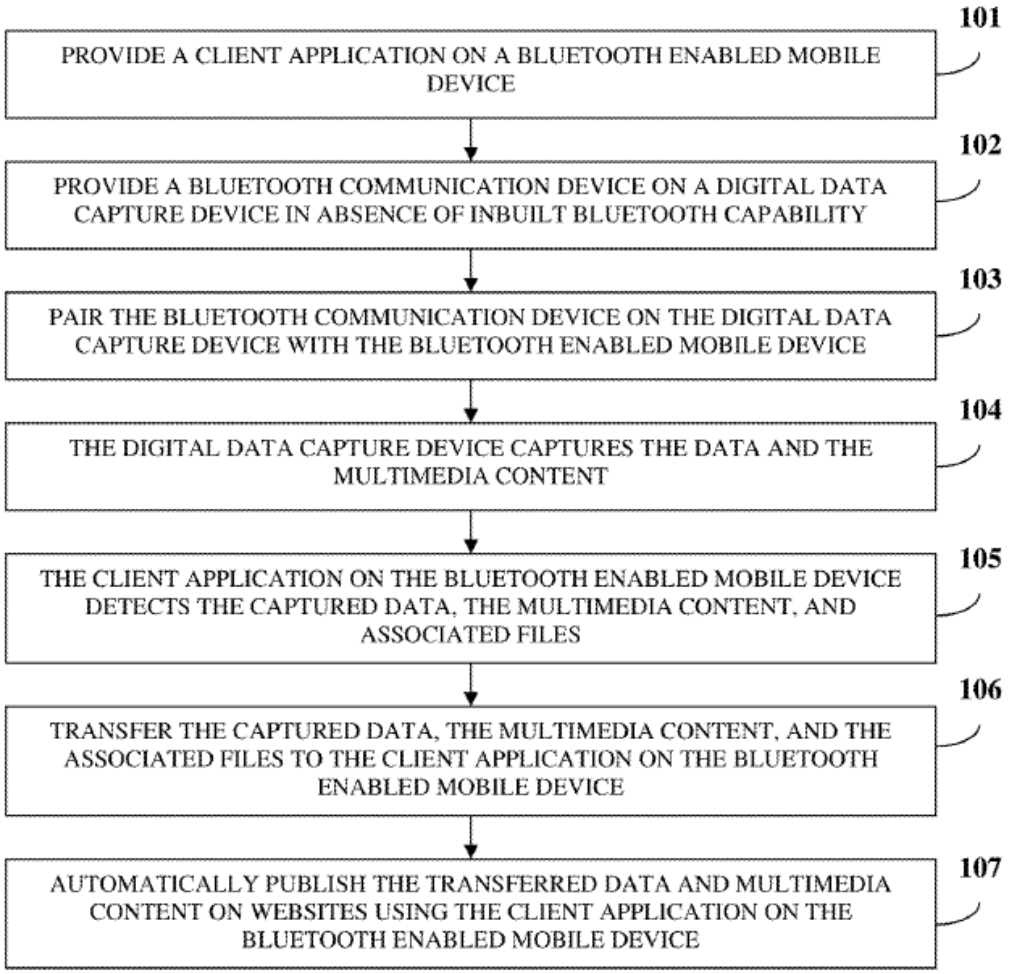

Figure 1 above illustrates a method wherein data capture device 201 is paired with mobile device 202 in step 103. *Id.* at 3:59–6:32. In step 104, data capture device 201 captures data and multimedia content. *Id.* Client application 203 on mobile device 202 detects the captured data and multimedia content in step 105, and the data and multimedia content are transferred to the client application on the Bluetooth enabled mobile device in step 106. *Id.* In step 107, client application 203 on mobile device 202 automatically publishes the transferred data and multimedia content on one or more websites. *Id.*

Figure 4, reproduced below, illustrates a system for publishing data and the multimedia content using client application 203 on a mobile device on one or more websites simultaneously. *Id.* at 3:47–49.

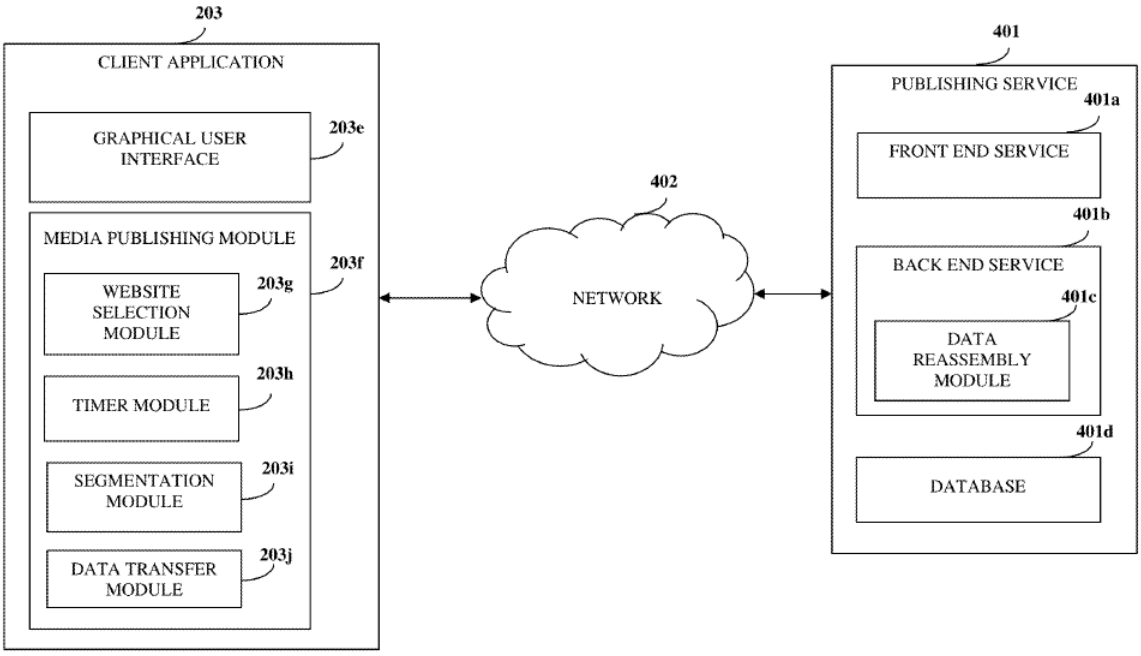

Figure 4 above illustrates the system, including client application 203, publishing service 401, and network 402. *Id.* at 8:4–61. Network 402 may be, for example, a wireless network, a cellular network, or the internet. *Id.*

D. The Challenged Claims

Petitioner challenges all claims (1–16) of the '381 patent. Claims 1, 7, and 12 are independent. Claim 1 is reproduced below,[1] with bracketed numbering added:[2]

1. [1.P] A system, comprising:

[1.1] a mobile software application for a Bluetooth enabled cellular phone, wherein the mobile software application is embodied as executable program instructions that, when executed by a processor of the Bluetooth enabled cellular phone, configured to:

[1.2] detect and receive new-data acquired in a Bluetooth enabled data capture device, [1.3.1] wherein the new-data is data acquired by the Bluetooth enabled data capture device after establishing a paired Bluetooth connection between the Bluetooth enabled data capture device and the Bluetooth enabled cellular phone, [1.3.2] wherein establishing the paired Bluetooth connection comprises the Bluetooth enabled data capture device cryptographically authenticating an identity of the Bluetooth enabled cellular phone, [1.4.1] wherein detecting and receiving the new-data acquired in the Bluetooth enabled data capture device comprises:

said mobile software application for the Bluetooth enabled cellular phone configured to listen for an

[1] A Certificate of Correction (July 4, 2023), corrected all of the independent claims. *See* Ex. 3001. Neither Petitioner's Listing of Claims nor Patent Owner's quotation of certain claim language reflects these corrections. *See* Pet. i–vii; Prelim. Resp. 54–55. We incorporate the changes listed in the Certificate of Correction into our analysis and into all claim language quoted herein. On the current record, we do not view the changes listed in the Certificate of Correction as affecting any of the parties' current arguments.

[2] For ease of reference, we use the same numbering Petitioner uses in the Petition. *See, e.g.*, Pet. i–ii.

event notification, sent from the Bluetooth enabled data capture device, over the established paired Bluetooth connection, [1.4.2] wherein the event notification corresponds to the acquired new-data and comprises sending a signal from the Bluetooth enabled data capture device to the Bluetooth enabled cellular phone; and

[1.4.3] said mobile software application for the Bluetooth enabled cellular phone configured to receive, from the Bluetooth enabled data capture device, the event notification and the acquired new-data over the established paired Bluetooth connection;

[1.5] store the received new-data in a memory of the Bluetooth enabled cellular phone;

[1.6.1] use Hypertext Transfer Protocol to transfer the received new-data along with a user authentication credential to a remote server over a cellular data network, [1.6.2] wherein the mobile software application is further configured to use the Hypertext Transfer Protocol to send a user preference to the remote server over the cellular data network, and wherein the user preference comprises global positioning system information; and

[1.7] display a mobile advertisement inside the mobile software application;

[1.8] an online data publishing web service, the online data publishing web service comprising:

[1.9] said remote server configured with a network internet connection to communicate with the mobile software application;

[1.10] a user authentication software module, wherein the user authentication software module processes the user authentication credential received from the mobile software application;

[1.11] a database, wherein the database stores a user profile; and

[1.12] a mobile software application advertising software module, wherein the mobile software application advertising software module selects advertisements based on the user profile and sends the selected advertisements to the mobile software application;

[1.13] said online data publishing web service configured to receive the new-data and the user authentication credential from the Bluetooth enabled cellular phone via the Hypertext Transfer Protocol; and

[1.14] said online data publishing web service configured to process the received user authentication credential and the new-data.

Ex. 1007, 12:28–13:29.

Independent claims 7 and 12 are similar to claim 1, but are directed to a mobile software application (rather than a system), and lack the limitations of claim 1 directed to an online data publishing web service (limitations [1.8]–[1.14]). Claim 12 also differs from claims 1 and 7 in that in claim 12, the mobile software application is "configured to poll the Bluetooth enabled data capture device for new-data" (limitation [12.3.1]), whereas in claims 1 and 7, the mobile software application is "configured to listen for an event notification, sent from the Bluetooth enabled data capture device" (limitations [1.4.1], [7.3.1]). *See* Ex. 1007, 14:34–15:6; Pet. i, iv, vi.[3]

E. Asserted Grounds of Unpatentability

Petitioner asserts that claims 1–16 are unpatentable on the following two grounds:

[3] We note that the Petition's recitation of limitation [12.3.1] contains typographical errors, including the omission of the term "poll." *See* Pet. v–vi.

Ground	Claim(s) Challenged	35 U.S.C. §[4]	Reference(s)/Basis
1	1–16	103	Hiroishi,[5] Kahn,[6] Bluetooth[7]
2	1–16	103	Singh129,[8] Singh906[9]

Pet. 1–2. Petitioner supports its contentions with the Declaration of David B. Lett (Ex. 1030), among other evidence.

[4] The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) ("AIA"), amended several provisions of 35 U.S.C., including §§ 102, 103. Consistent with our analysis in Ground 2 below which applies a priority date of December 4, 2021, we apply the AIA version of § 103 herein. *See infra* Section III.F.1.b. Our Decision, however, does not depend on which version of § 103 is used.

[5] Hiroishi, Japanese Unexamined Patent Application Publication 2003-60953, published February 28, 2003 ("Hiroishi"). The record includes the original Japanese language publication (Exhibit 1013), a translation (Exhibit 1011), and a certificate of translation (Exhibit 1012). For purposes of this Decision we use the certified translation (Exhibit 1011).

[6] Kahn et al., U.S. Patent App. Pub. US 2004/0004737 A1, published January 8, 2004 ("Kahn," Ex. 1017).

[7] Petitioner cites two separate documents for "Bluetooth." Pet. 18–20. The first document is Bluetooth Specification Version 2.1 + EDR, dated July 26, 2007 ("Bluetooth Core Specification," Exhibit 1019). The second document is C. Bisdikian, "An Overview of the Bluetooth Wireless Technology," IEEE Communications Magazine, vol. 39, no. 12, pp. 86–94, December 2001 ("Bluetooth Overview," Exhibit 1032).

[8] Singh et al., U.S. Patent App. Pub. US 2009/0172129 A1, published July 2, 2009 ("Singh129," Ex. 1009).

[9] Singh, U.S. Patent App. Pub. US 2008/0103906 A1, published May 1, 2008 ("Singh906," Ex. 1010).

II. PATENT OWNER'S ARGUMENTS FOR DISCRETIONARY DENIAL

Patent Owner argues three different bases for why we should use our discretion to deny the Petition. Prelim. Resp. 4–21. We address each basis in turn below.

A. Discretionary Denial Under § 314(a)

Patent Owner argues that we should exercise discretion to deny institution in view of the *Fintiv*[10] factors. *See* Prelim. Resp. 2–19. In particular, Patent Owner contends that the Parallel Litigation "is already well-developed" and "set for trial on August 4, 2025, which is two months before a Final Written Decision would be due . . . here." *Id.* at 2.

Petitioner does not address each of the *Fintiv* factors, but instead asserts that "institution of the Petition ***should not*** be discretionarily denied" because it has provided a *Sotera*[11] stipulation, i.e., Petitioner stipulates "not to pursue in the parallel district court proceeding the same grounds as in the Petition or any grounds that could have reasonably been raised in the Petition if this IPR is instituted." Pet. 78 (citing Ex. 1035 (stipulation)); *see also* Prelim. Reply 1 (urging that its *Sotera* stipulation is dispositive and obviates the *Fintiv* analysis here).

In view of Petitioner's *Sotera* stipulation, we will not exercise discretion to deny institution under 35 U.S.C. § 314(a). The Director has issued guidance stating that, when such a stipulation is presented, the PTAB will not discretionarily deny institution in view of the parallel litigation. *See*

[10] *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (Mar. 20, 2020) (precedential) ("*Fintiv*").

[11] *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12, 18–19 (Dec. 1, 2020) ("*Sotera*").

Ex. 1034 (Guidance) 3. That guidance is unequivocal and dispositive of the *Fintiv* analysis here.

Nevertheless, Patent Owner attempts to avoid the Director's guidance, urging that "a *Sotera* Stipulation will never include art which is ineligible for this IPR, such as product prior art, evidence of a prior sale, or public use." Prelim. Resp. 10. Patent Owner further contends that Petitioner is "the Real Party in Interest" behind four *ex parte* reexamination requests filed by Unified Patents against the '381 patent and related patents. *See id.* at 11–16. According to Patent Owner, Petitioner has "already run afoul of its *Sotera* Stipulation by evidently driving" these filings. *See id.* at 14–15.

Patent Owner's arguments are unavailing. It is always the case that IPR is limited to certain types of grounds and prior art. *See* 35 U.S.C. § 311(b) (limiting the scope of IPR to grounds "under section 102 or 103 and only on the basis of prior art consisting of patents or printed publications"). If anything, this demonstrates a lack of overlap between this proceeding and the Parallel Litigation—it certainly does not distinguish the Director's guidance. We also disagree that Petitioner's alleged involvement in the filing of the reexamination requests Patent Owner identifies runs afoul of its obligations under the *Sotera* stipulation. Petitioner's obligation not to pursue grounds in parallel proceedings is conditioned on the institution of *inter partes* review. Ex. 1035 (Stipulation), 1. Thus, even assuming *arguendo* Petitioner is a real party in interest behind these reexamination requests, Petitioner's *Sotera* stipulation did not prevent it from participating in the filing of those requests prior to our decision to institute *inter partes* review here. For these reasons, Patent Owner's *Fintiv* arguments are

unavailing, and we do not exercise discretion to deny the petition under 35 U.S.C. § 314(a).

B. Discretionary Denial Under § 316(b)

In addition to its *Fintiv* arguments, Patent Owner advances a separate theory for discretionary denial under 35 U.S.C. § 316(b). That is, Patent Owner contends discretionary denial is warranted to "deter certain types of Petitions" like the one here, which "undermine both the economy and the integrity of the patent system." Prelim. Resp. 21. According to Patent Owner, "[t]he Government is presently executing a preexisting and dynamic policy initiative against the Petitioner and Real Party in Interest (TikTok)" that "implicates foreign policy, national security, and national competitiveness in connection with the technology the Patent Owner accuses of infringement (namely, TikTok's Data Upload Algorithms)," and instituting *inter partes* review "would transform [the Board] into an instrument that might serve the interests of a company and nation state that [other parts of the government] have openly condemned as acting against the interests of the United States and its citizens." *Id.* at 22. For this reason, Patent Owner contends "the enumerated § 316(b) factors weigh strongly against institution, regardless of the merits of the Petition" and "should lead to discretionary denial." *See id.* at 21, 25.

In reply, Petitioner points out that § 316(b) "concerns the Director's prescribing of regulations," whereas the Petition concerns a Cellspin patent and does not "implicate[] TikTok's intellectual property, nor . . . ask the Board to take any action concerning TikTok." Prelim. Reply 2–3. In addition, Petitioner contends that Patent Owner's argument improperly extends § 316(b) to "considerations of foreign policy and national security"

and "would involve an evidentiary review that is not provided for in the IPR procedures." *Id.* at 3 (internal quotation marks omitted). According to Petitioner, "[i]t would be improper for the Board to embrace such theories outside of rulemaking after public notice and a comment period have been provided." *Id.* at 4.

Patent Owner's argument for discretionary denial under § 316(b) is unavailing. The statute provides that "[i]n prescribing regulations under this section, the Director shall consider the effect of any such regulation on the economy, the integrity of the patent system, the efficient administration of the Office, and the ability of the Office to timely complete proceedings instituted under this chapter." 35 U.S.C. § 316(b). However, Patent Owner identifies no regulation, rule, or Office guidance that supports its argument here. In the absence of such, we decline to apply any discretion the Director may have under § 316(b) to deny the Petition based on the policy considerations and concerns alleged by Patent Owner.

C. Discretionary Denial Under § 325(d)

The parties dispute whether the Board should discretionarily deny the Petition under 35 U.S.C. § 325(d), with Petitioner arguing that the *Advanced Bionics*[12] framework favors institution, and Patent Owner arguing that it favors discretionary denial. *See* Pet. 76–77; Prelim. Resp. 19–21.

[12] *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020) (precedential).

Section 325(d) provides that the Director[13] may "reject the petition" if "the same or substantially the same prior art or arguments previously were presented to the Office." 35 U.S.C. § 325(d). The Board analyzes this issue under the following two-part framework set forth in the precedential *Advanced Bionics* case:

> (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of [the] first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.

Advanced Bionics, IPR2019-01469, Paper 6, 8.

Petitioner contends that "the examiner did not consider" the art and arguments in Ground 1. Pet. 77. Patent Owner does not respond to this assertion, but instead limits its § 325(d) arguments to the references and issues implicated in Ground 2. *See* Prelim. Resp. 19–21. Under these circumstances, we discern no reason to exercise discretion under § 325(d) to deny institution of the challenges in Ground 1.

We now turn to Ground 2, which is the primary focus of the parties' § 325(d) arguments. *See generally* Pet. 76–77; Prelim. Resp. 19–21. Regarding the first part of the *Advanced Bionics* framework, there can be little dispute that the Examiner previously considered the same or substantially the same asserted prior art references. Singh129 is a parent to the '381 patent, and the applicant addressed Singh906 during prosecution. *See, e.g.*, Prelim. Resp. 94 ("Singh129 is a parent to the '381 Patent");

[13] The Board institutes trial on behalf of the Director. 37 C.F.R. § 42.4(a).

Ex. 1008 ('381 patent prosecution history) 40–42. This is sufficient to move to the second part of the *Advanced Bionics* framework.

Petitioner argues that the Office erred in a manner material to the patentability of challenged claims by failing to "analyze whether the challenged claims were obvious over Singh129 in view of Singh906." Pet. 77. As background, we note that during prosecution, the Examiner issued a written description rejection, which "identified individual limitations that are not disclosed in the specification of the '381 patent." *Id.*; *see also id.* at 13–14; Ex. 1008 ('381 patent prosecution history) 78–79. The applicant responded by pointing to disclosure in Singh906, which is the publication of an application (U.S. Application No. 11/901,802 ("the '802 application")) that is incorporated by reference into the '381 Specification. *See* Ex. 1008 ('381 patent prosecution history) 40–42; Ex. 1007, 1:50–54 (incorporation by reference statement). Following the applicant's citation of Singh906, the Examiner issued a Notice of Allowability. *See* Ex. 1008 ('381 patent prosecution history) 14.

Petitioner argues that the Examiner's withdrawal of the written description rejection was error because the examiner "did not analyze whether the applicants were in possession of the claimed combinations of elements that mix and match features from unrelated patent applications," and "incorrectly assumed that the challenged claims are entitled to a priority date earlier than December 4, 2021." Pet. 77. According to Petitioner, as a consequence of this alleged error, the Examiner "did not analyze whether the challenged claims were obvious over Singh129 in view of Singh906." *Id.*

Patent Owner responds that "the Examiners clearly understood that Singh '906's 'client application 202' and Singh '129's 'client application

203' *are not* two separate mobile applications," and that "[a]dding the Bluetooth feature to the existing mobile application is the reason for [the] 'incorporated reference' in Cellspin's disclosure." Prelim. Resp. 20, 21. As such, Patent Owner argues that "the Examiners correctly understood that the challenged claims are entitled to the original priority date." *Id.* at 21.

On this record, we find that Petitioner has adequately demonstrated that the Examiner erred in a manner material to patentability. This follows from our finding that on the current record, Petitioner has shown a reasonable likelihood that the challenged claims are not entitled to a priority date earlier than December 4, 2021 and would have been obvious over Singh129 and Singh906. *See infra* Section III.F. We find Patent Owner's assertion that the Examiner understood that "[a]dding the Bluetooth feature to the existing mobile application is the reason for [the] 'incorporated reference' in Cellspin's disclosure" is not supported on this record, including because Patent Owner does not cite any portion of the prosecution history that reflects this alleged understanding. Prelim. Resp. 21.

For the above reasons, we decline to exercise our discretion to deny *inter partes* review under § 325(d).

III. PETITIONER'S UNPATENTABILITY ARGUMENTS

A. Principles of Law

In an *inter partes* review, "the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable." *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify "with particularity . . . the evidence that supports the grounds for the challenge to each claim")). Petitioner ultimately bears the burden of

persuasion to prove unpatentability of each challenged claim by a preponderance of the evidence. 35 U.S.C. § 316(e). This burden never shifts to Patent Owner. *See Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). The Board may authorize an *inter partes* review if we determine that the information presented in the Petition and Patent Owner's Preliminary Response shows a reasonable likelihood that Petitioner will prevail with respect to at least one of the claims challenged in the petition. 35 U.S.C. § 314(a).

Under 35 U.S.C. § 103, a claim is unpatentable as obvious if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. 35 U.S.C. § 103; *see also 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;[14] and (4) any objective indicia of obviousness or nonobviousness.[15] *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). An obviousness determination requires finding a reason to combine accompanied by a reasonable expectation of achieving what is claimed in the challenged patent. *See Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367 (Fed. Cir. 2016). "[A]ny need or problem known in the

[14] *See infra* Section III.B.

[15] Neither party submits such evidence at this stage.

field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." *KSR*, 550 U.S. at 419–20.

B. Level of Ordinary Skill in the Art

We consider the grounds of unpatentability in view of the understanding of a person of ordinary skill in the art at the time the invention was made. *See Graham*, 383 U.S. at 17–18. Petitioner contends that a person of ordinary skill in the art (sometimes abbreviated herein as "POSITA") would have had:

> at least a bachelor's degree in electrical engineering, computer engineering, or computer science, and two years of experience in the field consumer electronics, with exposure to digital camera technology and wireless communications. Superior education could compensate for a deficiency in work experience, and vice-versa.

Pet. 6 (citations omitted) (citing Ex. 1030 (Lett Decl.) ¶¶ 94–95). Patent Owner does not provide an explicit definition of a POSITA. *See generally* Prelim. Resp.

Because Petitioner's proposed level of ordinary skill in the art appears to be consistent with the cited prior art and is undisputed on this record, we adopt it for purposes of this Decision. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (indicating that the prior art itself may reflect an appropriate skill level).

C. Claim Construction

In AIA proceedings we interpret a 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). Under this

standard, we construe the claim "in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent." *Id.* "[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention," "after reading the entire patent" and its prosecution history. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313, 1321 (Fed. Cir. 2005) (en banc). "There are only two exceptions to this general rule: 1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution." *Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). Although extrinsic evidence including expert and inventor testimony, dictionaries, and learned treatises can be consulted to understand the meaning of a claim term, extrinsic evidence is less significant than the intrinsic record. *Phillips*, 415 F.3d at 1312–17. Usually, the specification is dispositive, and is the single best guide to the meaning of a disputed term. *Id.* at 1315.

Petitioner asserts that no express constructions are required to institute review and find the challenged claims unpatentable. *See* Pet. 6–7.

Patent Owner asserts that the order of two specific claim limitations "is key and limiting," and proposes constructions for three claim terms. Prelim. Resp. 54, *see also id.* at 52–56. We address Patent Owner's arguments in turn below.

1. Recited Order of Certain Operations

Patent Owner argues that "the order of certain recited operations . . . is key and limiting," namely, "(i) new-data is necessarily limited to data

acquired *after* establishing the paired Bluetooth connection; and (ii) storage of the new data necessarily follows the initial acquisition of the said new data." Prelim. Resp. 54. To support this argument, Patent Owner argues that "the order of certain operations was viewed as limiting as to the specific claims at issue" in a related matter in the United States District Court for the Northern District of California. *See id.* at 53–54 (citing Ex. 2014 (N.D. Cal. Order) 9–13).

Patent Owner's argument is unavailing. Despite Patent Owner's acknowledgement that "the claims at issue in [the Northern District of California] litigation are materially different from those being challenged here," it makes no substantive argument as to why the California court's analysis is applicable to the claims here. *See id.* at 54. Patent Owner also fails to discuss the California court's analysis. Patent Owner is reminded that 37 C.F.R. § 42.6(a)(3) prohibits incorporating arguments by reference from one document into another. To the extent Patent Owner wishes us to consider or adopt another court's analysis, Patent Owner must explain that analysis and the reasons why we should consider or adopt it in its brief. Patent Owner's claim construction analysis should also follow the principles articulated in *Phillips*, 415 F.3d 1303, as well as the Federal Circuit's precedent regarding construction of the order of claim steps. *See, e.g.*, *Mformation Techs., Inc. v. Rsch. in Motion Ltd.*, 764 F.3d 1392, 1398–99 (Fed. Cir. 2014) (explaining that unless an order is expressly recited "steps are not ordinarily construed to require" an order, but that "a claim requires an ordering of steps when the claim language, as a matter of logic or grammar, requires that the steps be performed in the order written, or the

specification directly or implicitly requires an order of steps") (internal quotations omitted).

In sum, on this record, Patent Owner fails to adequately support its argument that the challenged claims should be construed to recite a certain order of operations.

2. "after establishing a paired Bluetooth connection"

Patent Owner argues that we should construe the phrase "after establishing a paired Bluetooth connection"[16] to mean: "after the paired Bluetooth connection is established and maintained on a continuous basis." Prelim. Resp. 54–55.

Patent Owner's sole support for this argument is a citation to the Northern District of California claim construction order. *See id.* (citing Ex. 2014 (N.D. Cal. Order) 13, 15, 23). Patent Owner again makes no substantive argument describing the California court's analysis and why it is applicable to the claims here, nor does it present a construction analysis consistent with the principles articulated in *Phillips*, 415 F.3d 1303.

3. "polling"

The terms "poll" and "polling" are recited in limitations [12.3.1] and [12.3.2].[17] *See* Ex. 1007, 14:50–56; Ex. 3001 (Cert. of Correction) 2;

[16] Patent Owner presents this phrase as, "after establishing ***the*** paired Bluetooth connection," but we do not see this phrase recited in the challenged claims. *See* Prelim. Resp. 54–55 (emphasis added). Rather, limitations [1.3.1], [7.2.1], and [12.2.1] recite "after establishing ***a*** paired Bluetooth connection." *See* Pet. i, iii, v; Ex. 1007, 12:37–38, 13:53, 14:41.

[17] As noted above, the Petition's recitation of limitation [12.3.1] contains typographical errors, including the omission of the term "poll." *See* Pet. v–vi.

Pet. iv–vi.[18] Patent Owner argues that we should construe the phrase "polling" in accordance with the Northern District of California's construction, to mean: "'checking status [of] on a predetermined basis,' where 'predetermined' refers to programming that sets the frequency of the status checks (*e.g.*, at set intervals, dynamic intervals, randomly, etc.)." Prelim. Resp. 55 (citing Ex. 2014 (N.D. Cal. Order) 19–20).

Petitioner responds that Patent Owner is relying "on a claim construction order for U.S. Patent 8,738,794, which is a different, unrelated patent." Prelim. Reply 6 (citing Ex. 2014 (N.D. Cal. Order) 19). Petitioner further argues that no construction is necessary because "the plain[] meaning of the term 'polling' is evident from stated function within the claim itself," i.e., "[c]laim 12 clearly states that 'polling comprises sending a request to the Bluetooth enabled data capture device to check if the acquired new-data is available for transfer.'" *Id.* (quoting limitation [12.3.2]).

Patent Owner's argument again fails because it makes no substantive argument describing the California court's analysis and why it is applicable to the claims here, nor does it present a construction analysis consistent with the principles articulated in *Phillips*, 415 F.3d 1303. Additionally, on the current record, we agree with Petitioner that no construction of "polling" appears to be necessary in view of the detail recited in limitation [12.3.2].

[18] We note that the Petition's recitation of limitation [12.3.1] contains typographical errors, including the omission of the term "poll." *See* Pet. v–vi.

4. "user profile"

Patent Owner argues that "user profile," which appears in limitations [1.11] and [1.12] and in dependent claim 6, excludes an "image database," and must contain "User_ID (key), username, password, password salt, gender, age and email address." Prelim. Resp. 56.

Petitioner responds that the term "user profile" does not appear in the '381 Specification, and only appears in the '802 application incorporated by reference into the '381 patent. *See* Prelim. Reply 5; Ex. 1007, 1:50–54. Petitioner states that "the '802 application teaches a single database 204a of the publishing service that 'comprises **user profiles**, user preferences, advertisement profiles, advertisements, and **user created multimedia content**.'" Prelim. Reply 5 (quoting Ex. 1010 (Singh906[19]) ¶ 34) (emphasis Petitioner's). Petitioner argues, "Thus, the literal language of the '802 application is sufficient to dismiss PO's arguments." *Id.* Petitioner further argues that Patent Owner's requirement that the database include "User_ID (key), username, password, password salt, gender, age and email address" is "nowhere in the '381 patent specification or in the '802 application." *Id.*

Patent Owner's argument fails because it does not support its construction with an analysis consistent with the principles articulated in *Phillips*, 415 F.3d 1303. Additionally, on the current record, we agree with Petitioner that Patent Owner's proposed construction of "user profile" appears to be unsupported, for the reasons detailed by Petitioner. *See* Prelim. Reply 5.

[19] Singh906 is the published version of the '802 application. *See* Ex. 1010 (Singh906), code (21).

5. Conclusion

We find Patent Owner's proposed claim constructions unsupported for the reasons discussed above. We also find it unnecessary to construe any claim term to decide whether Petitioner satisfies the "reasonable likelihood" standard for instituting trial. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (noting that "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))).

Any final written decision entered in this case may include express claim constructions, or may include discussion of claim scope that differs from that provided in our analysis in this Decision. Any final claim constructions will be based on the full trial record.

D. Overview of Asserted Prior Art

1. Hiroishi (Exhibit 1011)

Hiroishi, titled "Photographing System, Photographing Method, Camera, Recording Medium, and Program," relates to "a photographing system, a photographing method, a camera, a recording medium and a program that allows a photographer him/herself to reliably take a self-portrait." Ex. 1011, codes (54), (57).

Figure 1 of Hiroishi is reproduced below.

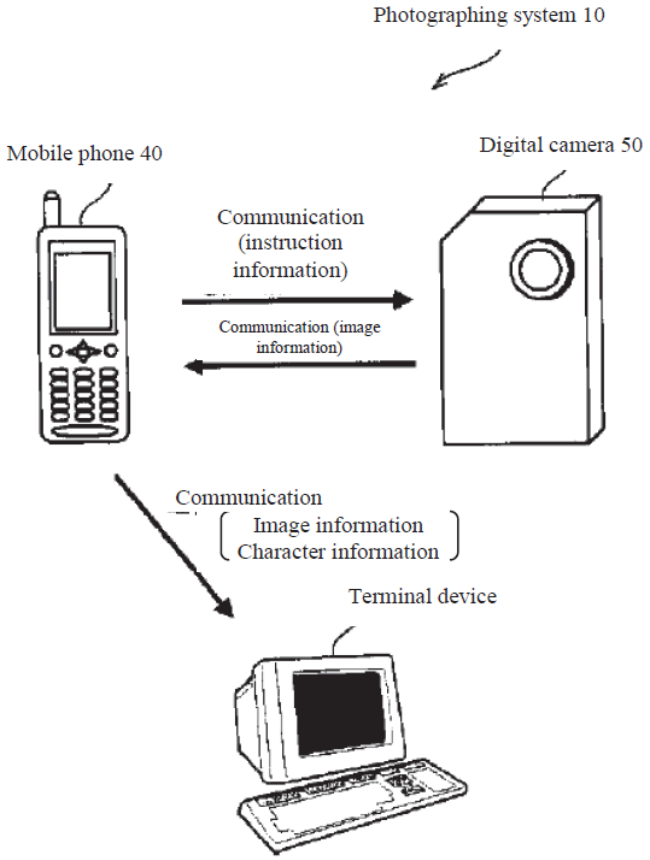

Figure 1 depicts photographing system 10 having mobile phone 40, digital camera 50, and a terminal device. *Id.* ¶ 42. Digital camera 50 acquires image information showing an object image, and sequentially transmits the acquired image information to mobile phone 40. *Id.* at code (57).

Photographing system 10 is configured for two-way wireless Bluetooth communication between mobile phone 40 and digital camera 50. *Id.* ¶¶ 66, 67. Mobile phone 40 transfers to a terminal device the image information received from digital camera 50 together with character information. *Id.* at code (57), ¶ 44. Keys provided to mobile phone 40 are used to remotely operate digital camera 50 by transmitting various instruction information from mobile phone 40 to digital camera 50. *Id.* ¶ 43.

2. Kahn (Exhibit 1017)

Kahn, titled "Imaging System Providing Automated Fulfillment of Image Photofinishing Based on Location," relates to "improved techniques for the organization and processing (e.g., photofinishing) of digital images based on information indicating where the images were captured and/or where the user is presently located." Ex. 1017, codes (54), (43), (21), (22), ¶ 4.

Figure 3, reproduced below, is a high-level block diagram illustrating basic components of the system. *Id.* ¶ 23.

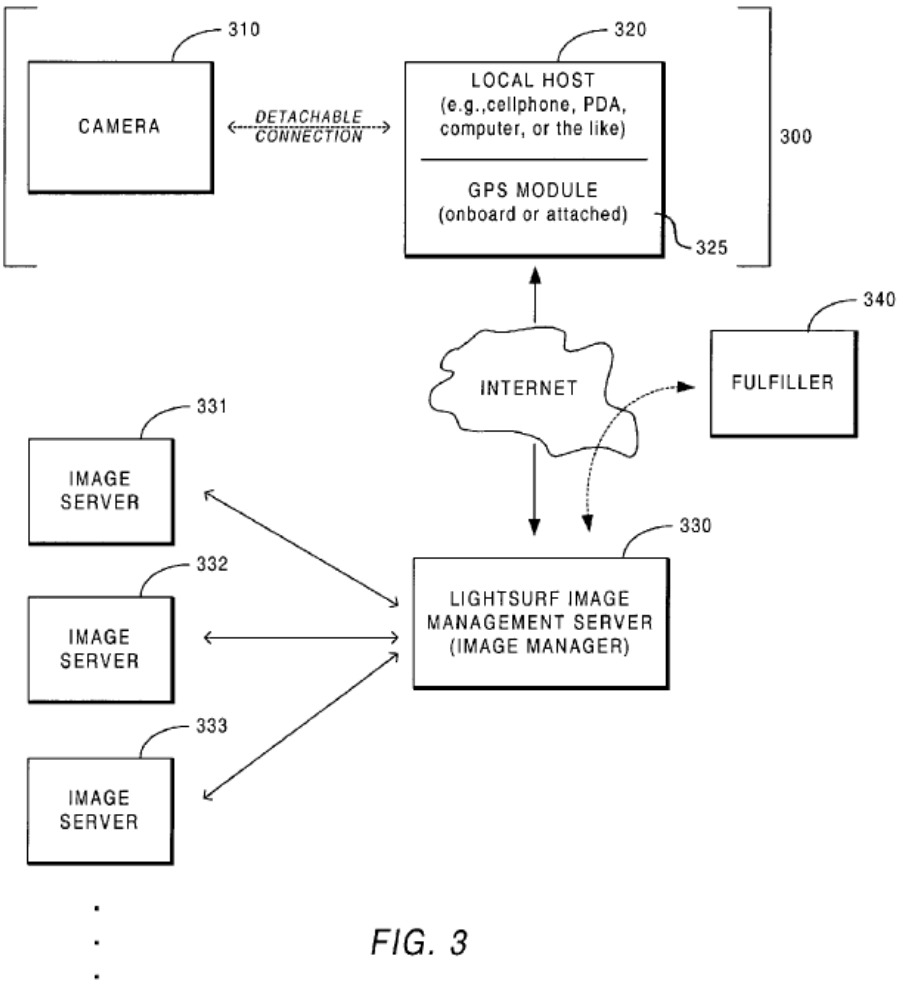

FIG. 3

Figure 3 above depicts camera 310 (which is preferably a wireless camera), local host 320 (such as a cellular phone), and GPS module 325, which provides real-time GPS information to the host 320. *Id.* ¶ 55.

Host device 320 establishes an internet connection to online Web-based image management server 330, using, e.g., HTTP protocol. *Id.* ¶ 56. Location ID information (e.g., GPS information) from GPS module 325 is associated with the captured images. *Id.* ¶¶ 57, 58. The location information may be used to offer location-dependent promotions to the user. *Id.* ¶ 51.

3. Bluetooth (Exhibits 1019 and 1032)

As discussed above (*see supra* footnote 7), Petitioner cites two separate documents for "Bluetooth," i.e., the Bluetooth Core Specification (Ex. 1019) and Bluetooth Overview (Ex. 1032).[20]

The Bluetooth Core Specification is a specification of the Bluetooth System, Covered Core Package version 2.1 + EDR [Enhanced Data Rate]. Ex. 1019, 1, 45.[21] The Bluetooth Core Specification is an extensive document comprising over 1400 pages. Among other things, the Bluetooth Core Specification describes Secure Simple Pairing (*id.* at 131–36), LMP [link manager protocol]-pairing (*id.* at 88, 1260, 1269–70), payload format

[20] Bluetooth Overview is dated 2001 and notes that at that time the Bluetooth specification was "at version 1.1." Ex. 1032, 2. At this stage, neither party identifies any pertinent distinction between the version of Bluetooth described in Bluetooth Overview (Ex. 1032) and the 2.1 + EDR version in the Bluetooth Core Specification (Ex. 1019).

[21] For Exhibits 1019 and 1032 we use the page numbering applied to the bottom middle of each page.

and packets and their characteristics (*id.* at 291–98), sniff mode and polling mode (*id.* at 128–29, 332, 345–48), and poll packets (*id.* at 283).

Bluetooth Overview provides an overview of Bluetooth technology. Ex. 1032, 1. It states, "Bluetooth wireless technology will serve primarily as a replacement of the interconnect cables between a variety of personal devices, including notebook computers, cellular phones, personal digital assistants (PDAs), digital cameras, etc." *Id.* (footnote omitted). It further states, "[c]onnecting to data services through one's cellular phone gives rise to the concept of a *personal gateway*. People will carry their personal gateways wherever they go." *Id.*

4. Singh129 (Exhibit 1009)

Singh129, titled "Automatic Multimedia Upload for Publishing Data and Multimedia Content," is the July 2, 2009 publication of the '303 application (i.e., the first non-provisional application in the series of continuation applications that led to the '381 patent). Ex. 1009, codes (54), (43), (21), (22). Singh129 has the same disclosure as the specification of the '381 patent. *Compare* Ex. 1007, *with* Ex. 1009.

As will be discussed further below (*see infra* Section III.F), Patent Owner contends that Singh129 is not prior art. *See* Prelim. Resp. 42–52.

5. Singh906 (Exhibit 1010)

Singh906, titled "Online Publishing of Multimedia Content," is the May 1, 2008 publication of the '802 application. Ex. 1010, codes (54), (43), (21), (22). The '381 patent incorporates the '802 application by reference. *See* Ex. 1007, 1:50–54.

Figure 2, reproduced below, illustrates a system for publishing user-created multimedia content on publication virtual spaces. Ex. 1010 ¶¶ 13, 25.

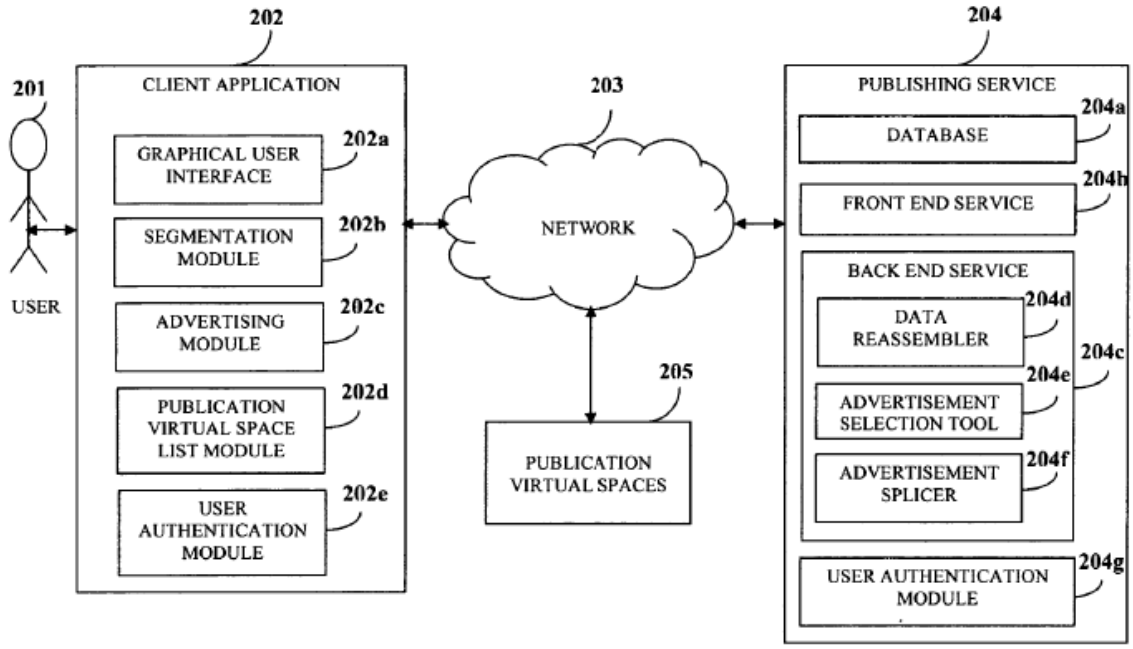

Figure 2 above illustrates user 201, client application 202 on a mobile device of the user, network 203, publishing service 204, and publication virtual spaces 205. *Id.* ¶¶ 17, 20. Client application 202 provides a graphical user interface 202a for user 201 to record content and transfer user-created multimedia content to publishing service 204. *Id.* Front end service 204b of publishing service 204 publishes the media content according to user preferences on one or more publication virtual spaces 205 via network 203. *Id.* ¶ 23; *see also* Fig. 4 (steps 407–411).

User 201 may set preferences on the mobile device including authentication credentials and global positioning system geographical codes. *Id.* ¶ 28; *see also* Fig. 2 (user authentication modules 202e and 204g), ¶ 23 (user preferences may comprise authentication credentials and global

positioning system geographical codes; user 201 stores preferences during registration with publishing service 204), ¶ 34. The user preferences are transferred to publishing service 204. *Id.* ¶¶ 28, 34 (database 204a of publishing service 204 comprises user profiles). Advertisements may be displayed to user 201 on the mobile device while user 201 is using client application 202 for recording and publishing the multimedia content. *Id.* ¶¶ 21, 22, Fig. 2 (advertising module 202c, advertisement selection tool 204e, advertisement splicer 204f), Fig. 3 (advertisement), ¶¶ 32, 36 (targeted advertisements based on the user profile may be selected by advertisement selection tool 204e), ¶ 42.

E. Ground 1 – Alleged Obviousness Over Hiroishi, Kahn, and Bluetooth

Petitioner asserts that claims 1–16 are unpatentable as obvious over the combination of Hiroishi, Kahn, and Bluetooth. Pet. 16–60. At this stage of the proceeding, Patent Owner argues that the asserted combination fails to teach or suggest seven different claim limitations. *See* Prelim. Resp. 62–93.

After considering all of Petitioner's and Patent Owner's arguments and cited evidence, we find that for purposes of institution, Petitioner has shown a reasonable likelihood of establishing that claims 1–16 are unpatentable as obvious over the combination of Hiroishi, Kahn, and Bluetooth.

We begin with a brief summary of Petitioner's arguments, then turn to Patent Owner's arguments.

1. Brief Overview of Petitioner's Arguments

Petitioner cites Hiroishi's teachings of a photograph system that includes a cellular phone paired via Bluetooth to a camera, and a program

that allows the photographer to remotely control the camera via the mobile phone to take self-portraits. *See* Pet. 28–30 (citing, e.g., Ex. 1011 (Hiroishi) ¶¶ 4, 66, 67, Figs. 1, 2, 4, 7A–D), 31 (citing, e.g., Ex. 1011 (Hiroishi) ¶¶ 6, 70–88, 91–107).[22]

According to Petitioner, "Hiroishi teaches that new-data acquired by the camera (images captured and stored in camera memory) are 'detected' when the mobile phone receives thumbnail images representative of the images captured and stored in camera memory (new-data acquired)." Pet. 30 (citing Ex. 1011 (Hiroishi) Figs. 4, 7A–7D, ¶¶ 68, 81, 82). "In the combination, based on the teachings of Hiroishi, the mobile software application program is configured to detect new data upon receipt of thumbnail images from the camera." *Id.* at 31 (citing Ex. 1011 (Hiroishi) ¶¶ 68, 71, 104).

According to Petitioner, the paired Bluetooth connection between the camera and mobile phone inherently comprises the camera "cryptographically authenticating" the identity of the mobile phone. Pet. 34. This is because, Petitioner argues, "the pairing process includes the exchange of BD_ADDR" (i.e., "the address of the Bluetooth device, which is a unique identifier") and "an initialization key and PIN." *Id.* at 33–34 (citing Ex. 1019 (Bluetooth Core Spec.) 412–15; Ex. 1030 (Lett Decl.) ¶¶ 1109–10); *see also* Ex. 1019 (Bluetooth Core Spec.) 89 (stating that "BD_ADDR[] is used to identify a Bluetooth device"). Petitioner alternatively argues that it would have been obvious to use cryptographic

[22] For purposes of this overview of Petitioner's arguments, we treat Petitioner's arguments for independent claim 7 as representative.

authentication between the camera and mobile phone because it was routine at the time of the alleged invention and "would have ensured the secure transmission of image files and related data between the two devices." Pet. 34 (citing, e.g., Ex. 1030 (Lett Decl.) ¶¶ 1111–13).

Regarding the mobile software application configured to listen for an event notification (limitation [7.3.1]), Petitioner asserts that "[i]n the combination, Hiroishi's program is configured to wait for response (listen) for a thumbnail image (an event notification) from the camera over the Bluetooth connection." Pet. 35 (citing Ex. 1011 (Hiroishi) ¶¶ 81, 82, 93, 104–05); *see also id.* at 36–41; Ex. 1030 (Lett Decl.) 1114–19. Petitioner alternatively argues that limitation [7.3.1] is taught by (1) Kahn's program listening for a timestamp (the event notification), which accompanies the images transferred from the camera to the mobile phone; and (2) Bluetooth's polling scheme, wherein the master device (mobile phone) sends a polling request to the slave device (camera) and listens for the AR_ADDR (access request address, i.e., the event notification). *See* Pet. 39–42; Ex. 1017 (Kahn) Fig. 5B, ¶¶ 8, 60; Ex. 1019 (Bluetooth Core Spec.) 139, 235–36, 269, 332; Ex. 1030 (Lett Decl.) ¶¶ 1120–21.

Regarding the claimed use of hypertext transfer protocol ("HTTP") to transfer the new-data and a user authentication credential to a remote server (limitation [7.3.1]), Petitioner acknowledges that "Hiroishi is silent as to the transport protocol used for sending the images to the remote server," but argues that "Kahn describes the host device (a cell phone) in communication with a server using HTTP." Pet. 45 (citing Ex. 1017 (Kahn) ¶¶ 56, 57). Petitioner argues that a person of ordinary skill in the art would have been motivated to use HTTP because "Hiroishi already teaches the desire to

transfer image data from a digital camera to a mobile device and to a terminal device," and Kahn "teaches an efficient and predictable technique [i.e., HTTP] for uploading image data (captured by a camera) from a mobile device to a publishing website." Pet. 23 (citing Ex. 1011 (Hiroishi) ¶ 44; Ex. 1017 (Kahn) ¶ 63; Ex. 1030 (Lett Decl.) ¶¶ 1086–87). Mr. Lett additionally explains that at the time of the alleged invention, use of HTTP was widespread, and a person of ordinary skill in the art would have been motivated "to use HTTP (webmail) to transfer the received new-data (full resolution image) along with a user authentication credential (email address of the sender/phone application user) to a remote server (e.g., an email server hosting the email address of the terminal unit of the transfer destination) over a cellular data network (Hiroishi's cellular data network)." Ex. 1030 (Lett Decl.) ¶ 1141; *see also id.* ¶¶ 1139–41.

Regarding the portions of limitation [7.5.1] and [7.5.2] directed to transferring a user authentication credential and GPS information to a remote server, and limitation [7.6] regarding display of a mobile advertisement inside the mobile software application, Petitioner cites Kahn's teachings of using user authentication credentials for secure transmission and storage of the photos to a remote image library, and using location information derived from GPS "to offer location-dependent promotions to the user" on the mobile phone and to find nearby print shops. Pet. 24–27, 46–47; Ex. 1017 (Kahn) ¶¶ 51, 58, 64, 82, 94; Ex. 1030 (Lett Decl.) ¶¶ 1090, 1093, 1142–46; *see also* Ex. 1011 (Hiroishi) ¶¶ 49, 104–11 (describing transmission of photos to print shop).

2. Whether the Asserted Combination Teaches or Suggests Certain Claim Limitations

Patent Owner disputes that the asserted prior art combination teaches or suggests several limitations that appear in one or more of the independent claims. We address each disputed limitation in turn.

a. Detection of New Data

Patent Owner disputes that Petitioner has demonstrated a reasonable likelihood that the cited prior art teaches or suggests the so-called "detection" step recited in each of the independent claims. *See* Prelim. Resp. 62–63. Because the "detection" language in independent claims 1 and 7 is different than that of independent 12, we first address claims 1 and 7, then turn to claim 12.

i. Claims 1 and 7

Claims 1 and 7 recite that the mobile software application is configured to "detect and receive new-data acquired in a Bluetooth enabled data capture device" (limitations [1.2], [7.1]), wherein "detecting and receiving new-data . . . comprises" the mobile software application being "configured to listen for an event notification" (limitations [1.4.1], [7.3.1]), "wherein the event notification corresponds to the acquired new-data" (limitations [1.4.2], [7.3.2]). *See* Pet. i, iii–iv. Stated more succinctly for purposes of the below discussion, claims 1 and 7 recite that detecting new-data comprises the mobile software application being configured to listen for an event notification, where the event notification corresponds to the acquired new-data.

According to Petitioner, "Hiroishi teaches that new-data acquired by the camera (images captured and stored in camera memory) are 'detected'

when the mobile phone receives thumbnail images representative of the images captured and stored in camera memory (new-data acquired)." Pet. 30 (citing, e.g., Ex. 1011 (Hiroishi) Figs. 4, 7A–7D, ¶¶ 68, 81–82). Petitioner continues, "Hiroishi's program is configured to wait for response (listen) for a thumbnail image (an event notification) from the camera over the Bluetooth connection." *Id.* at 35 (citing, e.g., Ex. 1011 (Hiroishi) ¶¶ 81–82, 93, 104–05). On this record, we agree with Petitioner that "[a] POSITA would have understood that the program on the mobile phone 'waits' for the thumbnail images, the waiting constituting as the phone listening for the event notification signal." *Id.* at 36; Ex. 1030 (Lett Decl.) ¶ 1116.

Patent Owner argues that "the act of 'receiving thumbnail images' from the camera according to the teachings of Hiroishi is *not* a 'detection,' but is rather the simple response/reply by the camera to an express instruction as received from the mobile device." Prelim. Resp. 63. Patent Owner, however, has not persuasively established at this stage that waiting for a response is outside of the plain meaning of the claim terms "listen[ing]" or "detecting."

ii. Claim 12

Claim 12 recites that the mobile software application is configured to "detect and receive new-data acquired in a Bluetooth enabled data capture device" (limitation [12.1]), wherein "detecting and receiving new-data . . . comprises" the mobile software application is "configured to poll the Bluetooth enabled data capture device for new-data" (limitation [12.3.1]), "wherein polling comprises sending a request to the Bluetooth enabled data capture device to check if the acquired new-data is available for transfer" (limitation [12.3.2]). *See* Pet. v–vi; Ex. 3001 (Cert. of Correction). Stated

more succinctly for purposes of the below discussion, claim 12 recites that detecting new-data comprises the mobile software application being configured to poll (send a request) to the data capture device to check for new-data.

According to Petitioner, "Hiroishi teaches sending, from the program running on the mobile phone, a thumbnail instruction to the camera, which is a polling instruction." Pet. 59 (citing, e.g., Ex. 1011 (Hiroishi) ¶¶ 81, 84, 102, Figs. 5–6; Ex. 1019 (Bluetooth Core Spec.) 235–37, 315–37). Petitioner continues, "Hiroishi's program is configured to wait for response (listen) for a thumbnail image (an event notification) from the camera over the Bluetooth connection." *Id.* at 35 (citing, e.g., Ex. 1011 (Hiroishi) ¶¶ 81–82, 93, 104–05).

As discussed above, Patent Owner argues that "the act of 'receiving thumbnail images' from the camera according to the teachings of Hiroishi is *not* a 'detection,' but is rather the simple response/reply by the camera to an express instruction as received from the mobile device." Prelim. Resp. 63. Patent Owner's argument is even less persuasive in the context of claim 12, which expressly recites that "detecting . . . comprises" "polling," i.e., "sending a request to the Bluetooth enabled data capture device to check if the acquired new-data is available for transfer." *See* Pet. v–vi; Ex. 3001 (Cert. of Correction). Hiroishi's mobile phone sends a request for thumbnails to the camera, and the camera responds with the thumbnails. On the current record, this scheme appears to teach or suggest the "polling" scheme recited in claim 12.

b. Event Notifications

Claims 1 and 7 recite that the mobile software application is "configured to listen for an event notification" (limitations [1.4.1], [7.3.1]), "wherein the event notification corresponds to the acquired new-data" (limitations [1.4.2], [7.3.2]). *See* Pet. i, iii–iv. Patent Owner disputes Petitioner's arguments that Hiroishi, Kahn, and Bluetooth each teach an "event notification" as claimed. *See* Prelim. Resp. 64–72; Pet. 35–42, 51–52. We address each argument in turn.

Petitioner argues that in Hiroishi, the thumbnail images transmitted from the camera to the phone (at the phone's request) constitute the claimed "event notification." *See, e.g.*, Pet. 35. Patent Owner responds that "the referenced '*thumbnail transmission instruction*'" does not "enable event notifications." Prelim. Resp. 65–66.

Patent Owner's argument is unclear because the challenged claims do not recite any term requiring the "enablement" or "enabling" of event notifications. *See id.* Instead, the plain language of these claim terms states that "the event notification corresponds to the acquired new-data." Because the thumbnails serve to notify the mobile phone program that images have been taken and are ready for transmission, and because "[t]he thumbnails (event notification) created by the camera represent (i.e., correspond to) the full resolution images captured (new-data acquired) by the camera," we find that on this record, Petitioner has adequately demonstrated for purposes of institution that Hiroishi's thumbnail images teach or suggest the claimed event notification. *See* Pet. 40–41; *see also id.* at 35–36, 38–39; Ex. 1030 (Lett Decl.) ¶¶ 1118–19, 1123.

Patent Owner also argues that in Hiroishi, "(i) the image data is transmitted *first*; (ii) the transmission *ends*; and *then* (iii) the thumbnail transmission instruction is sent." Prelim. Resp. 66–67 (citing Ex. 1011 (Hiroishi) Fig. 6). This argument appears to misconstrue what Hiroishi means by "Transmission of image transmission start instruction information" (which term appears at Step 206 in Hiroishi's Figure 6, cited at Prelim. Resp. 67). As presently understood, this term appears to refer to transmission of image data in the camera's field of view to the mobile phone, rather than transmission of already-captured images. This is because as shown in Figure 6, Step 206 occurs while the system is in "photographing mode," which starts at Step 202. *See* Ex. 1011 (Hiroishi) Fig. 6, ¶ 91. In photographing mode, digital image data from the camera is displayed on the phone, and the user can perform operations such as zoom-in and zoom-out and can control release of the camera's shutter to capture a photograph. *See id.* at, *e.g.*, ¶¶ 93–94, 100–01. Upon exiting photographing mode (e.g., Step 222), the system proceeds to Steps 228 and 236, where thumbnails and selected images can be transmitted from the camera to the phone. *See id.* ¶¶ 102, 107. Should the parties disagree with this view of Hiroishi, they are invited to address this during trial.

Patent Owner also argues that "when a thumbnail transmission instruction is sent, the received data is a 'plurality' of thumbnails." Prelim. Resp. 67 (citing Ex. 1011 (Hiroishi) ¶¶ 84, 105). Patent Owner argues that "[a] POSITA would not understand the receipt of a 'plurality of thumbnails' *on request* . . . to be an 'event notification' in any sense of the word, for the new image that was just taken." *Id.* at 68. Patent Owner, however, does not

explain what language in the claims excludes a plurality of thumbnails from constituting the claimed event notification.

Turning to Petitioner's alternative argument based on Kahn, we begin by summarizing that argument, to provide context for our discussion. Petitioner argues that "[t]he '381 patent fails to describe what the event notification is," but a person of ordinary skill in the art reviewing claim 6 of related U.S. Patent No. 8,904,030 (the "'030 patent") "would have recognized that a timestamp was an event notification." Pet. 39–40 (citing Ex. 1001 ('030 patent[23]) claim 6 (indicating that the data signal notification can include a timestamp)). Petitioner argues that in Kahn, "when the user selects upload/upload all, the phone would have [to] listen for a signal from the camera," i.e., the images, which include a timestamp. *Id.* at 39–40 (citing, e.g., Ex. 1017 (Kahn) Fig. 5B, ¶¶ 8, 60, 74–79; Ex. 1030 (Lett Decl.) ¶ 1120).

Patent Owner argues that "when a user selects the option to 'upload / upload all,' the mobile phone *already knows* that there are photos to be uploaded." Prelim. Resp. 68–69. As such, Patent Owner argues, "there is plainly *no signal* to notify (from the camera) that there is new-data." *Id.* at 69. This argument is unavailing, because Patent Owner fails to adequately explain why an "event notification" must be the first time the mobile phone is alerted to the corresponding new-data.

Patent Owner also argues that Kahn's "mobile device is doing nothing more than sending a request ('PTC Retrieve Photo List'), and is plainly not

[23] The '030 patent "shares the same specification and priority claim" as the '381 patent. Pet. 39.

listening to any timestamp." Prelim. Resp. 69. At this stage, however, Patent Owner has not persuasively established that waiting for a response is outside of the plain meaning of the claim term "listen[ing]" or "event notification."

Turning to Petitioner's alternative argument based on Bluetooth, we begin by summarizing that argument, to provide context for our discussion. Petitioner argues that "Bluetooth teaches polling," wherein "the slave device (the camera) has to send an AR_ADDR message to the master device so that the slave can send data," and "[a]fter sending a polling request to the slave, the master device listens for the AR_ADDR, which is the event notification." Pet. 40 (citing Ex. 1019 (Bluetooth Core Spec.) 235–36, 332; Ex. 1030 (Lett Decl.) ¶ 1121).

Patent Owner argues that "Polling and Event Notification are two very different methods. They are not examples of one another, they are not related and, in fact, are *conceptual opposites*." Prelim. Resp. 71. This argument is unavailing, because it is untethered from the claim language. The claims do not recite a method of "Event Notification." Rather, the claims merely recite that an "event notification" "corresponds to the acquired new-data." *See* Pet. i, iv limitations [1.4.2], [7.3.2].

Patent Owner also argues that "the cited 'AR_ADDR' messages are low level *request-response* messages at the Bluetooth Transport Layer," and have "*nothing* to do with any 'signal/event notification for new data (image)' at the much higher mobile Application Layer." Prelim. Resp. 71–72. Implicit to Patent Owner's argument is an assumption that the challenged claims exclude the use of "low level" messages "at the Bluetooth Transport Layer" as event notifications for new data. *Id.* But on the current record,

Patent Owner offers no explanation why this is the case. To the extent Patent Owner pursues this argument at trial, it should identify what language in the challenged claims it contends require that the recited "event notification" appear in a particular layer and explain why that language should be interpreted to exclude Petitioner's combination of the Bluetooth functionality it identifies with the other references' software applications.

c. Polling for New Data

Claim 12 recites that the mobile software application is "configured to poll the Bluetooth enabled data capture device for new-data" (limitation [12.3.1]), "wherein polling comprises sending a request to the Bluetooth enabled data capture device to check if the acquired new-data is available for transfer" (limitation [12.3.2]). *See* Pet. v–vi; Ex. 3001 (Cert. of Correction) 2.

Petitioner argues that "Hiroishi teaches sending, from the program running on the mobile phone, a thumbnail instruction to the camera, which is a polling instruction." Pet. 59 (citing Ex. 1011 (Hiroishi) ¶¶ 81, 84, 102, Figs. 5–6; Ex. 1019 (Bluetooth Core Spec.) 235–37, 315–37); Ex. 1030 (Lett Decl.) ¶ 1185. Petitioner alternatively argues that "Bluetooth teaches polling," namely, it teaches that 'to avoid collisions on the ACL logical transport, a slave is only allowed to transmit when addressed by the LT_ADDR in the packet header in the preceding master-to-slave slot.'" *Id.* (emphasis omitted) (citing Ex. 1019 (Bluetooth Core Spec.) 332; Ex. 1030 (Lett Decl.) ¶ 1186 ("The Bluetooth Core Specification teaches the master device polling the slave device periodically for transmissions; and the slave device only sending transmissions when it receives a LT_ADDR with the slave device addressed.")).

For purposes of institution, we find that Petitioner has demonstrated a reasonable likelihood that at least Hiroishi teaches or suggests limitations [12.3.1] and [12.3.2], for the reasons discussed in the Petition. *See* Pet. 59–60.

Patent Owner does not address Petitioner's showing based on Hiroishi and instead attacks only Petitioner's alternative reliance on Bluetooth, arguing that the Bluetooth polling that Petitioner cites "is performed at a 'ACL Logical Data Link Layer' and to 'avoid collision' at the Packet Level," and "has nothing whatsoever to do with mobile *application layer* polling for new-data." Prelim. Resp. 75–76. Again, Patent Owner's argument assumes that the challenged claims require the recited activity to occur at the application layer. To the extent Patent Owner pursues this argument at trial, it should identify what language in the challenged claims it contends requires that the recited "polling" appear in a particular layer and explain why that language should be interpreted to exclude Petitioner's combination of the Bluetooth functionality it identifies with the other references' software applications.

d. HTTP

Independent claims 1, 7, and 12 recite the use of "Hypertext Transfer Protocol to transfer the received new-data along with a user authentication credential to a remote server over a cellular data network, wherein the mobile software application is further configured to use the Hypertext Transfer Protocol to send a user preference to the remote server over the cellular data network." Pet. ii, iv, vi (limitations [1.6.1], [1.6.2], [7.5.1], [7.5.2], [12.5.1], [12.5.2]). For these limitations, Petitioner cites Kahn's teaching of using HTTP to upload images and user authentication credentials

from the mobile phone to a remote terminal. *See, e.g.*, Pet. 44–46; Ex. 1017 (Kahn) ¶¶ 56, 57, 63, 64; Ex. 1030 (Lett Decl.) ¶¶ 1134–43. Mr. Lett additionally explains that "[g]iven the widespread use of HTTP, a POSITA would have understood that Hiroishi's mobile phone would have implemented communication with network 12 using HTTP." Ex. 1030 (Lett Decl.) ¶ 1139; *see also* Pet. 22; Ex. 1021 (Kalajan) 5:49–56 (describing using HTTP to send images from phone to server).

Patent Owner argues that "Kahn actually uses *WMTP* for media upload and login – *not HTTP*." Prelim. Resp. 76; *see also id.* at 78–79 (citing disclosure of WMTP in Kahn Figs. 5C, 5D). Patent Owner asserts that "Wireless Modular Transport Protocol ('WMTP') is a Transport Layer protocol, whereas Hypertext Transfer Protocol ('HTTP') is an Application Layer protocol." *Id.* at 76. Patent Owner further asserts that "[t]o the extent Kahn mentions HTTP at all, it is only in the context of communication with the internet server for other purposes (primarily, location APIs)," but for "media transfer and login, Kahn plainly teaches *the exclusive use of WMTP*." *Id.* at 80 (citing Ex. 1017 (Kahn) ¶¶ 56, 63, Figs. 5C, 5D).

For purposes of institution, we find that Petitioner has demonstrated a reasonable likelihood that Kahn teaches or suggests the use of HTTP to transfer the images and user authentication credential to a remote server, for the reasons discussed in the Petition. *See* Pet. 22, 44–46. Patent Owner reads Kahn too narrowly. Although Kahn's Figures 5C and 5D refer to "WMTP"[24] for transferring images, Kahn elsewhere specifically teaches use

[24] While the term "WMTP" appears in these figures, it does not seem to be defined or discussed elsewhere in Kahn.

of HTTP for communication between the mobile phone and image management server. *See* Ex. 1017 (Kahn) ¶ 56. Kahn also broadly teaches that the upload process "occurs via wireless communication technique," and on this record, Petitioner adequately demonstrates for purposes of institution that HTTP was a known and commonly used technique for sending images from a phone to a server. *See*, *e.g.*, Pet. 22, 45; Ex. 1030 (Lett Decl.) ¶ 1139; Ex. 1021 (Kalajan) 5:49–56.

e. Pairing and Cryptographic Authentication

The challenged independent claims recite a "paired Bluetooth connection" comprising "the Bluetooth enabled data capture device cryptographically authenticating an identity of the Bluetooth enabled cellular phone." Pet. i, iv, v (limitations [1.3.2], [7.2.2], [12.2.2]); Ex. 3001 (Cert. of Correction).

Petitioner argues that in Hiroishi, the camera and mobile phone are "paired" as claimed because they "are linked via a Bluetooth connection," which allows for two-way communication. Pet. 31, 33. Petitioner further argues that cryptographic authentication of the mobile phone is inherent in the use of Bluetooth, because the pairing process includes the exchange of information that uniquely identifies the mobile phone. *Id.* at 33–34; Ex. 1030 (Lett Decl.) ¶¶ 1109–10. Petitioner alternatively argues that it would have been obvious to a person of ordinary skill in the art at the time of the alleged invention to use cryptographic authentication between Bluetooth paired devices because it was routine and "would have ensured the secure transmission of image files and related data between the two devices." Pet. 34 (citing Ex. 1030 (Lett Decl.) ¶¶ 1111–13); *see also id.* at 18–19, Ex. 1030 (Lett Decl.) ¶ 54.

Patent Owner argues that Petitioner presents no evidence that a person of ordinary skill in the art "would have elected to use pairing and cryptographic authentication from among the countless possible combinations available under the Bluetooth standard." Prelim. Resp. 81. Patent Owner asserts that pairing and authentication are "*purely optional features*" and two devices need not have been "'paired' (as defined by Bluetooth protocols)" in order to transfer images or messages. *Id.* at 84. Patent Owner also argues that "the POSITA would have naturally designed in accordance with the Bluetooth Basic Image Profile ('BIP') for image pull or push, which at the time specified an *unpaired and unauthenticated* connection" that nevertheless allowed for secure transmission of image files. *Id.* at 85 (citing Ex. 2015 (BIP Spec.) 15–17), 88.

For purposes of institution, we find that Petitioner has demonstrated a reasonable likelihood that pairing and cryptographic authentication was taught or suggested by the cited prior art, for the reasons discussed in the Petition. *See* Pet. 18–19, 30–35. Petitioner, for example, has demonstrated a reasonable likelihood of prevailing in showing that the connection between Hiroishi's camera and mobile phone is "paired," given that there is bi-directional communication between the devices through Bluetooth. *See* Pet. 31; Ex. 1011 (Hiroishi) ¶ 66. Petitioner has also adequately established for purposes of institution that cryptographic authentication as claimed is inherently part of the Bluetooth pairing process, or alternatively, that it would have been obvious to implement cryptographic authentication because it was routine and would advantageously ensure the secure transmission of image files and related data between the two devices. *See* Pet. 18–19, 33–35; Ex. 1030 (Lett Decl.) ¶¶ 54, 1109–13; Ex. 1019

(Bluetooth Core Spec.) 412 (4.2.2 Pairing), 131 (5 Secure Simple Pairing Overview). Patent Owner's arguments that a person of ordinary skill in the art would have used an unpaired and unauthenticated connection in accordance with the BIP, and that this approach would have allowed for secure image transfer, are presently unavailing, as they are attorney argument only. Moreover, in an obviousness analysis "all disclosures of the prior art, including unpreferred embodiments, must be considered." *Merck & Co. v. Biocraft Labs.*, 874 F.2d 804, 801 (Fed. Cir. 1989). Thus, even if we assume that pairing and the use of cryptographic encryption keys were understood to be optional features, on the current record it still appears that it would have been obvious to combine those optional features for the reasons set forth in the Petition, even if BIP was also known and preferred.

f. Database Storing User Profile

Claim 1 recites that the online data publishing web service comprises "a database, wherein the database stores a user profile." *See* Pet. ii (limitation [1.11]). Petitioner argues that Kahn teaches a metadata database that stores user profiles, including fields for user ID, timestamp (date/time), and location ID (longitude and latitude decimal values). *See* Pet. 55 (citing, e.g., Ex. 1030 (Lett Decl.) ¶ 1172; Ex. 1017 (Kahn) ¶ 98).

Patent Owner argues that Kahn's database is not consistent with Patent Owner's proposed claim construction, which requires that the database contain certain information (including "username, password, password salt, gender, age and email address"), and that it not be an image database. Prelim. Resp. 89–90.

On the current record, these arguments are unavailing for at least two reasons. First, as explained above (*see supra* Section III.C.4), we do not

presently adopt Patent Owner's proposed construction for "user profile." Second, even if a user profile excluded an image database as recited in Patent Owner's proposed construction, we are not presently persuaded that Kahn's metadata database includes images. Rather, Kahn teaches that the image manager stores the images "in an image server" "as individual files (e.g., using UNIX File System)," whereas the "[t]he metadata, including the location ID, is stored as a database record in a database table in the metadata database." Ex. 1017 (Kahn) ¶ 98; Ex. 1030 (Lett Decl.) ¶ 1182.

g. Mobile Advertising Based on User Profile

Claim 1 recites "a mobile software application advertising software module" that "selects advertisements based on the user profile." Pet. ii (limitation [1.12]). Petitioner argues that Kahn teaches determination of applicable advertisements based on the user's location, and transmission of those advertisements to the mobile device via an applet like that depicted in Kahn Figure 5A. *See* Pet. 55–57; Ex. 1017 (Kahn) ¶¶ 51, 71, 87, Fig. 5A; Ex. 1030 (Lett Decl.) ¶¶ 1173–75.

Patent Owner responds that in Kahn's Figure 5A, the advertisement is not based on a user profile, but rather is shown if "the user confirms no camera has been purchased for connection." Prelim. Resp. 91–92 (citing Ex. 1017 (Kahn) ¶ 71, Fig. 5A). On this record, we agree with Patent Owner the advertisement depicted in Kahn's Figure 5A appears to be displayed only in response to a query about whether the user has purchased a camera, and thus does not appear to be based on a user's location or on other information in a user profile.

That said, Kahn elsewhere teaches or suggests location-based advertisements. *See* Ex. 1017 (Kahn) ¶¶ 51, 87. Patent Owner

acknowledges this, but argues that these advertisements are "not for any mobile software application /J2ME applet," but rather are "a WAP page, an SMS message, [or] an e-mail alert." Prelim. Resp. 92–93 (quoting Ex. 1017 (Kahn) ¶ 87). This reads Kahn too narrowly. Kahn does not limit its teachings to delivering location-based advertisements via "a WAP page, an SMS message, [or] an e-mail alert," but rather provides these options as non-limiting examples of how a promotion can be delivered to a user. Ex. 1017 (Kahn) ¶ 87 ("The resulting set of promotions is transmitted back to the host device, for viewing/selection by the user, *for example* as a WAP page, an SMS message, an e-mail alert, *or the like*.") (emphasis added). Patent Owner's argument fails to read Kahn as a whole and to take into account the knowledge of a person of ordinary skill in the art, which would have included delivering advertisements via the mobile phone application, as depicted in Kahn's Figure 5A (albeit with an example of a non-location based advertisement). *See* Pet. 55–57; Ex. 1017 (Kahn) ¶¶ 51, 71, 87, Fig. 5A; Ex. 1030 (Lett Decl.) ¶¶ 1173–75.

Patent Owner also argues that "Petitioner fails to address the fact that the Challenged Claims require a 'plurality' of advertisements being selected and sent to the mobile software application based on the user profile." Prelim. Resp. 93. This argument is unavailing, because we discern no language in claim 1 requiring a "plurality" of advertisements nor does Patent Owner identify such.

3. Conclusion – Ground 1

After considering the arguments and cited evidence of record, we determine that for purposes of institution, Petitioner sufficiently shows that the combination of Hiroishi, Kahn, and Bluetooth teaches or suggests each

limitation of claims 1–16, and that a person of ordinary skill in the art would have had a reason to combine the teachings of these references with a reasonable expectation of success. *See, e.g.*, Pet. 16–60. Accordingly, on this record, Petitioner shows a reasonable likelihood of prevailing on Ground 1, and on this basis, we institute an *inter partes* review of all challenged claims. *See* 37 C.F.R. § 42.208(a).

We now turn to providing guidance on our current view of the parties' arguments concerning Ground 2.

F. Ground 2 – Alleged Obviousness Over Singh129 in View of Singh906

For Ground 2, Petitioner asserts that claims 1–16 are unpatentable as obvious over Singh129 in view of Singh906. Pet. 60–76. As discussed above (*see supra* Section III.D.4), Singh129 is the publication of the '303 application (i.e., the first non-provisional application in the series of continuation applications that led to the '381 patent), and has the same disclosure as the specification of the '381 patent. *See* Pet. 60; Prelim. Resp. 94 (asserting that "Singh129 is a parent to the '381 Patent, and . . . no new matter was added in any intervening application"); *compare* Ex. 1007, *with* Ex. 1009. Because Singh129 is within the priority chain of the '381 patent, a threshold question is whether it qualifies as prior art to the challenged claims.

Whether Singh129 qualifies as prior art to the challenged claims depends on whether the challenged claims have adequate written description support in the priority applications. This question, in turn, implicates two issues: (i) whether Patent Owner's attempt to incorporate the disclosure of Singh906 into the '381 Specification by reference was effective; and

(ii) even if it were effective, whether the challenged claims find adequate written description support in the asserted priority applications (including the disclosure of Singh906).

We address these two issues first, then turn to whether Petitioner has demonstrated a reasonable likelihood of demonstrating that the challenged claims are unpatentable as obvious over Singh129 in view of Singh906.

1. Whether Singh129 Qualifies as Prior Art

To rely on the filing date of an earlier application, the earlier application must include a disclosure that complies with the written description requirement of 35 U.S.C. § 112. *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1571–72 (Fed. Cir. 1997); 35 U.S.C. § 120. The written description requirement requires that a patent's specification "contain a written description of the invention . . . in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains . . . to make and use the same." *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). This provision ensures that "the inventor actually invented the invention claimed" and "had possession of the claimed subject matter as of the filing date." *Id.* at 1350–51.

The test for adequate written description support "requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art." *Id.* at 1351. "[T]he disclosure as originally filed does not have to provide *in haec verba* support for the claimed subject matter." *Purdue Pharma L.P. v. Faulding Inc.*, 230 F.3d 1320, 1323 (Fed. Cir. 2000). However, "one skilled in the art, reading the original disclosure, must immediately discern the limitation at issue in the claims." *Id.* "[A] description that merely renders the invention obvious

does not satisfy the [written description] requirement"; "it is the specification itself that must demonstrate possession." *Ariad Pharms.*, 598 F.3d at 1352.

The parties dispute whether Patent Owner effectively incorporated the disclosures of Singh906 into the '381 patent, such that these disclosures are available to provide written description support for the challenged claims. *See, e.g.*, Pet. 13–14; Prelim. Resp. 42–47. We begin our analysis with this issue.

a. Whether the Incorporation by Reference of Singh906 was Effective

As noted above, Singh906 is the publication of the '802 application. *See supra* Section III.D.5. The '381 patent incorporates the '802 application by reference, stating: "The following patent application is incorporated herein in its entirety: US Non-provisional patent application Ser. No. 11/901,802, titled 'Online Publishing of Multimedia Content', filed on Sep. 19, 2007 in the United States Patent and Trademark Office." Ex. 1007, 1:50–54.

Material incorporated by reference into a patent application "is effectively part of the host document as if it were explicitly contained therein." *Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1282 (Fed. Cir. 2000). Rule 57(d) of the Code of Federal Regulations (37 C.F.R. § 1.57(d)[25]) places certain requirements on material that is incorporated by reference.

[25] Citations herein are to the current version of 37 C.F.R. § 1.57. Should either party contend that a different version of Rule 57 applies in this case, they should promptly state as much in their next brief.

Rule 57(d) defines "essential material" as material incorporated by reference that is necessary to provide a written description of the claimed invention. 37 C.F.R. § 1.57(d). Rule 57(d) further states, in relevant part, that essential material can be incorporated by reference into a patent application "only by way of an incorporation by reference to a U.S. patent or U.S. patent application publication." *Id.* Rule 57(c) states that "an incorporation by reference must be set forth in the specification." 37 C.F.R. § 1.57(c). Finally, Rule 57(h) states: "An incorporation of material by reference that does not comply with paragraphs (c), (d), or (e) of this section is not effective to incorporate such material unless corrected within any time period set by the Office, but in no case later than the close of prosecution." 37 C.F.R. § 1.57(h).

Petitioner asserts that because the patent applicant directed the Examiner to disclosures in the '802 application as support for certain limitations of the challenged claims, those disclosures are "essential material" under Rule 57(d). Pet. 13–14 (citing Ex. 1008 ('381 patent prosecution history) 41, 45–46, 78–79). As such, Petitioner argues that Patent Owner needed to have incorporated by reference "a ***U.S. patent or U.S. patent application publication***,[] not . . . an unpublished application like the '802 application." *Id.* Petitioner contends that Patent Owner, as the patent applicant, "did not seek to replace the reference to the unpublished ['802] application with a reference to the [corresponding] published application [Singh906]" before the close of prosecution, and "[i]t is too late to do so now." *Id.* at 14. Petitioner argues that without an effective incorporation by reference of Singh906, the challenged claims cannot claim priority to any date earlier than the December 4, 2021, filing date of U.S.

Application No. 17/542,373, i.e., the application that led directly to the '381 patent. *See* Pet. 1–2; Ex. 1007, codes (21), (22); *see also* 35 U.S.C. § 100(i) (defining the "effective filing date" for a claim as either the application's actual filing date or the filing date of the earliest application that supports the claim).

Patent Owner responds that its incorporation by reference of the '802 application "fully complied with" Rule 57, and asserts that during prosecution, the applicant indicated that Singh906 is the published version of the '802 application. Prelim. Resp. 42–46 (citing Ex. 2013 (prosecution history excerpts) 30–36, 40–47).

In its Preliminary Response, Patent Owner appears to rely solely on Singh906 as providing written description support for certain limitations of the challenged independent claims, e.g., limitations relating to targeted advertisements. *See, e.g.*, Prelim. Resp. 50–51 (citing only Singh906 as describing targeted advertisements based on a user profile, and a user profile stored in database[26]). This is consistent with the applicant's citation of Singh906 during prosecution, in response to the Examiner's written description rejection. *See* Ex. 1008 ('381 patent prosecution history) 40–42. Accordingly, for purposes of institution, we consider Singh906 to be "essential material" under Rule 57.

[26] Patent Owner cites "'802 Application (Exh. 2009)," paragraphs 7, 21, and 24, for these disclosures. Prelim. Resp. 50. We assume this citation is a typographical error, because (i) Exhibit 2009 is not the '802 Application; and (ii) the '802 Application, which appears in the record as Exhibit 1026, lacks paragraph numbering. We assume Patent Owner intended to cite Singh906 (Exhibit 1010), at paragraphs 7, 21, and 24, because these paragraphs contain the language Patent Owner quotes.

On the present record, we do not agree that Patent Owner "fully complied with" Rule 57 by (i) citing the '802 application in its incorporation-by-reference statement, and (ii) referencing the corresponding publication (Singh906) during prosecution. *See* Prelim. Resp. 42–47. Rule 57 expressly states that "an incorporation by reference ***must be set forth in the specification***," and that reference to essential material can be "only by way of an incorporation by reference to a U.S. patent or ***U.S. patent application publication***." 37 C.F.R. § 1.57(c), (d) (emphasis added). Here, Patent Owner's incorporation-by-reference statement in the '381 Specification references the '802 application, which is an unpublished application, not a U.S. patent application publication. *See* Ex. 1007, 1:50–54.

Nevertheless, on the current record and in view of the facts of this case, deeming the incorporation by reference to be ineffective would exalt form over substance. Although the incorporation-by-reference statement in the '381 Specification refers to the unpublished '802 application, the corresponding U.S. patent application publication (Singh906) was published on May 1, 2008 (which is before the December 11, 2008, filing date of the '303 application, i.e., the earliest utility application in the chain that led to the '381 patent), and was thus available to a person looking to find a copy of the '802 application. Additionally, during prosecution of the '381 patent, Patent Owner (as the patent applicant) cited both the '802 application and Singh906 when indicating written description support for certain claim limitations. *See, e.g.*, Ex. 1008 ('381 patent prosecution history) 41, 45–46. After receiving the amendment where Patent Owner cited these documents, the Examiner issued a Notice of Allowability. *See id.* at 14.

For the above reasons, for purposes of institution, we find that the entirety of the '802 application/Singh906 was effectively incorporated by reference into the '381 patent.

b. Whether Patent Owner Demonstrates Adequate Written Description Support for the Claimed Subject Matter

Petitioner argues that even if Singh906 were effectively incorporated by reference, the challenged claims still lack adequate written description support. *See* Pet. 14. This is because, Petitioner argues, the claim limitation the Examiner identified as lacking written description support ("***display a mobile advertisement inside the mobile software application***"), as well as five additional limitations of challenged claim 1, are "described only in Singh906 in connection with [] Singh906's **distinct system**," and "[t]here is no disclosure of using these elements from Singh906's client application 202 with Singh129's client application 203." Pet. 13, 15. Petitioner correctly states that "other than the initial incorporation, . . . Singh906 is not mentioned or otherwise referenced in the specification," leaving "no suggestion of how the two applications might be combined or any suggestion that they be combined." *Id.* at 14.

Patent Owner responds with citations purporting to show that the terms "mobile device" and "client application" are used "dozens of times" in Provisional Application No. 61/017,202 ("the '202 Provisional") "to disclose precisely that which Petitioner complains is missing."[27]

[27] Although "[o]riginal claims are part of the original specification and in many cases will satisfy the written description requirement," here neither party cites any original claim language in any of the priority applications that may provide written description support for the challenged claims.

Prelim. Resp. 46–50. Patent Owner's presentation of these citations is confusing because Patent Owner makes no effort to identify the cited material as providing written description support for any particular claim limitation in the challenged claims. Moreover, we do not discern anything in the material Patent Owner cites from the '202 Provisional that relates to display of "a mobile advertisement inside the mobile software application" (recited in limitations [1.7], [7.6], [12.6]), or to the five additional limitations of challenged claim 1 that Petitioner lists on page 15 of the Petition. *See id.* at 49–51. Instead, as noted above, Patent Owner cites only Singh906 as allegedly describing targeted advertisements and a user profile stored in a database. *See id.* at 50–51.

The problem with Patent Owner's approach on the current record is that we are not directed to any disclosure that links the relevant features in Singh906 to the system described in the asserted priority applications, or otherwise indicates that the inventors had possession of a system as disclosed in the asserted priority applications, with the additional relevant features taught in Singh906 (e.g., Singh906's teachings regarding targeted advertisements). "A patent owner cannot show written description support by picking and choosing claim elements from different embodiments that are never linked together in the specification." *Flash-Control, LLC v. Intel Corp.*, No. 2020-2141, 2021 WL 2944592, at *4 (Fed. Cir. July 14, 2021) (nonprecedential); *Purdue Pharma L.P. v. Recro Tech., LLC*, 694 F. App'x 794, 797 (Fed. Cir. 2017) (nonprecedential) (finding inadequate written

Mentor Graphics Corp. v. EVE-USA, Inc., 851 F.3d 1275, 1297 (Fed. Cir. 2017).

description support where specification disclosed two types of drug-loaded beads, but did not suggest combining those beads into a single dosage form).

Patent Owner asserts that "the 'client application 202' as described in Singh906 and the 'client application 203' as described in [the alleged priority applications] are iterations of the exact same mobile application." Prelim. Resp. 52. But Patent Owner does not support this argument with citations to the patent disclosures (e.g., Singh906 or any of the alleged priority applications). Rather, Patent Owner argues that the evolution of its patent applications tracked the evolution of its commercial mobile application, and "a POSITA would have readily understood and appreciated this evolution of the mobile app feature set because mobile apps evolve and new features are constantly added to existing apps." Prelim. Resp. 32. Patent Owner argues that "[i]n recognition of this fact, the addition of new features is the industry norm, and such would be understood in view of the 'incorporation by reference' in Cellspin's written disclosure." *Id.*

This argument is unavailing. "[T]he hallmark of written description is disclosure"; "it is the specification itself that must demonstrate possession." *Ariad Pharms.*, 598 F.3d at 1351, 1352. It is unclear how the evolution of the feature set in Patent Owner's commercial product could be relevant to that issue. *See, e.g.*, *Enzo Biochem, Inc. v. Gen-Probe Inc.*, 323 F.3d 956, 969 (Fed. Cir. 2002) ("[P]roof of a reduction to practice, absent an adequate description in the specification of what is reduced to practice, does not serve to describe or identify the invention for purposes of § 112, ¶ 1."). And although adding new features to Singh129's system may have been the industry norm and obvious to do, "a description that merely renders the invention obvious does not satisfy the [written description] requirement."

Ariad Pharms., 598 F.3d at 1351, 1352; *see also Flash-Control, LLC*, 2021 WL 2944592, at *4 ("The written description requirement is not met when . . . the specification provides at best disparate disclosures that an artisan might have been able to combine in order to make the claimed invention.").

On the present record, we are not directed to adequate written description support for the display of "a mobile advertisement inside the mobile software application" or any of the five other limitations of challenged claim 1 that Petitioner lists on page 15 of the Petition. Even if support for certain of these limitations could be found in Singh906, we are not otherwise apprised on the current record of disclosure within the four corners of the Specification that demonstrates possession of the system or mobile application as claimed, i.e., one that combines the limitations Petitioner lists on page 15 of the Petition with the other claim limitations as recited in the challenged claims. *See* Pet. 14.

For the above reasons, on this record, we determine that Petitioner has demonstrated a reasonable likelihood that the challenged claims lack adequate written description support, and thus that the applicable priority date for the challenged claims is December 4, 2021. *See* 35 U.S.C. § 100(i). Accordingly, Singh129, which published on July 2, 2009, qualifies as prior art to the challenged claims. *See* Ex. 1009, code (43).

We next analyze whether Petitioner has demonstrated a reasonable likelihood that the challenged claims are unpatentable as obvious over Singh129 and Singh906.

2. Whether the Challenged Claims are Unpatentable as Obvious Over Singh129 and Singh906

Petitioner contends that the challenged claims are unpatentable over Singh129 and Singh906. Pet. 60–76. As a reminder, the '381 patent is a continuation of the '303 application that published as Singh129, and thus the '381 patent and Singh129 share a specification. *See* Pet. 60; Prelim. Resp. 94; *compare* Ex. 1007, *with* Ex. 1009; Ex. 1007, code (63).

For purposes of this overview of Petitioner's arguments, we treat Petitioner's arguments on independent claim 1 as representative. Petitioner cites Singh129 for most limitations of claim 1. *See* Pet. 63–73. Petitioner turns to Singh906 for discrete information, as follows.

Limitation [1.6.2] recites in part that the mobile software application is configured to send a user preference to a remote server, wherein the user preference comprises "global positioning system information." *See* Pet. ii. Petitioner cites Singh906's teaching that multimedia content can be published on a publishing service in accordance with user preferences, which may comprise GPS information. Pet. 69 (citing Ex. 1010 (Singh906) ¶ 23).

Limitations [1.10], [1.11], and [1.14] relate to an online data publishing web service comprising a user authentication software module configured to process a user authentication credential and a database that stores a user profile. *See* Pet. ii. Petitioner cites Singh906's teaching that the publishing service can employ authentication credentials and store user profiles. Pet. 71–73 (citing Ex. 1010 (Singh906) Fig. 1 (Step 104), Fig. 2 (user authentication module), Fig. 4 (steps 407, 410), ¶¶ 24, 28, 34, 35, 37, 49).

Limitations [1.7] and [1.12] recite features relating to targeted advertisements. *See* Pet. ii. Petitioner cites Singh906 for these features. *See* Pet. 69–70, 72 (citing Ex. 1010 (Singh906) Figs. 2–3, ¶¶ 7, 22, 32, 36).

Petitioner argues that a person of ordinary skill in the art would have been motivated to look to the features of both Singh129 and Singh906 when considering an improved publishing system, including because "Singh906 is referenced by Singh129 and discloses an alternative publishing system." Pet. 60. According to Petitioner, a person of ordinary skill in the art would have been motivated to modify Singh129's system to add Singh906's user authentication, user profiles (including GPS information), and targeted advertisements because (i) "adding authentication credentials and global position system information to Singh129's user preferences would have given the user more control over the publishing of their multimedia content," and (ii) adding targeted advertising "would have generated a source of revenue to support Singh129's media publishing service." Pet. 61–62; Ex. 1030 (Lett Decl.) ¶¶ 1197–1200; Ex. 1010 (Singh906) ¶ 9.

Based on the record before us, we find that the combination of Singh129 and Singh906 teaches or suggests all of the limitations of claim 1, and that a person of ordinary skill in the art would have had reason to combine features from Singh906 into Singh129 with a reasonable expectation of success, for the reasons discussed in the Petition.[28] *See*

[28] We recognize that the disclosures Petitioner relies on to show obviousness over Singh129 and Singh906 may be the same as those Patent Owner urges provide written description for the challenged claims. However, these are distinct inquires because it is well-settled that "a description that merely renders the invention obvious does not satisfy the [written description] requirement." *Ariad Pharms.*, 598 F.3d at 1352. Here, Petitioner offers

Pet. 60–73. We have also reviewed Petitioner's contentions with respect to claims 2–16, and find the same for these claims. *See id.* at 73–76.

At this stage, Patent Owner does not dispute that if Singh129 is prior art, the combination of Singh129 and Singh906 would have rendered the challenged claims obvious. *See generally* Prelim. Resp.

For the foregoing reasons, we determine that Petitioner has established a reasonable likelihood that it would prevail in showing that claims 1–16 would have been obvious over Singh129 and Singh906.

IV. CONCLUSION

We determine that the information presented establishes a reasonable likelihood that Petitioner would prevail in showing that at least one of the challenged claims of the '381 patent is unpatentable.

V. NOTICES

At this preliminary stage, we have not made a final determination regarding the patentability of any challenged claim or any underlying factual and legal issues. *See TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016) (noting that "there is a significant difference between a petitioner's burden to establish a 'reasonable likelihood of success' at institution, and actually proving invalidity by a preponderance of the evidence at trial"). Any final decision in this proceeding will be based on the full trial record.

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reasoning and evidence, which is unrebutted on the current record, to show that one of ordinary skill in the art would have found it obvious to combine these disclosures as recited in the challenged claims.

The Board will deem forfeited any issue not raised by Patent Owner in a timely response to the Petition, or as permitted in another manner during trial, even if asserted in the Preliminary Response or discussed in this Decision.

Nothing in this Decision authorizes Petitioner, in a manner not otherwise permitted by the Board's rules, to supplement the information pertaining to any ground of unpatentability advanced in the Petition.

In addition, the panel notes the following preferences and expectations:

All papers and exhibits submitted in PDF format should be searchable. Exhibits should be labeled with the exhibit number and page numbers should be added to the extent not present in the original document.

To the extent a party incorporates substantive arguments into a figure (*see, e.g.*, Prelim. Resp. 63, 64, 67, 70, 72, 78–79, 92 (adding arguments via annotations to various figures)), those arguments should not appear solely in the figure; they must also be located within the text portions of a brief. Adding lengthy annotations to figures should not be used as a means to circumvent the word limits on the parties' papers. *See* 37 C.F.R. § 42.24.

When citing a website (*see, e.g.*, Prelim. Resp. 12, 13, 15, 23, 24, 32–34, 75), a party shall file as an exhibit a PDF copy of the cited website page(s).

VI. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review is instituted based on all grounds asserted in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial commencing on the entry date of this Decision.

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