

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TIKTOK INC.,
Petitioner,

v.

CELLSPINSOFT, INC.,
Patent Owner.

IPR2024-00770
Patent 8,904,030 B2

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

VALEK, *Administrative Patent Judge*.

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

I. INTRODUCTION

TikTok Inc. (“Petitioner”) filed a Petition (Paper 2, “Pet.”), seeking *inter partes* review of claims 1, 2, 4–7, and 9–18 of U.S. Patent No. 8,862,757 B2 (Ex. 1001, “the ’030 patent”).¹ Cellspin Soft, Inc. (“Patent Owner”) 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 preliminary sur-reply.

Considering the arguments and evidence currently of record, we determine the Petition demonstrates “a reasonable likelihood that the [P]etitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). Accordingly, *inter partes* review is instituted.

II. BACKGROUND

A. Real Parties-in-Interest

Petitioner identifies TikTok Inc., ByteDance Inc., ByteDance, Ltd., ByteDance PTE, Ltd., and TikTok PTE, Ltd. as its real parties-in-interest. Pet. 83–84. Patent Owner identifies itself as its real party-in-interest. Paper 4, 2.

¹ The first sentence in the Petition identifies “claims 1-18” as the challenged claims. Pet. 1 However, Petitioner’s table of asserted grounds and all of its substantive argument sections omit claims 3 and 8. *See id.* at 1, 11, 51, 68. Thus, we understand the initial identification of claims 3 and 8 as being amongst the challenged claims to be a typographical error.

B. Related Matters

The parties identify *Cellspin Soft, Inc. v. ByteDance, Ltd., et al.*, No. 2:23-cv-496 (E.D. Tex.), referred to herein as “the Texas litigation,” as a related matter involving the ’030 patent. Pet. 84; Paper 4, 2. Petitioner also notes that “[t]he ’030 patent is in the same family” as six other patents that it has concurrently petitioned for *inter partes* review. Pet. 84. These related patents are the subject of IPR2024-00757, IPR2024-00759, IPR2024-00760, IPR2024-00767, IPR2024-00768, and IPR2024-00769, which are currently pending. Petitioner further notes that “[t]he ’030 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.*

C. The ’030 Patent

The ’030 patent issued on December 2, 2014 from an application filed June 4, 2014, and claims priority to a series of applications the earliest of which (Provisional Application No. 61/017,202 (“the ’202 application”)) was filed on December 28, 2007. Ex. 1001, codes (22), (45), (60).

The ’030 patent generally describes “a method and system for utilizing a digital data capture device in conjunction with a Bluetooth (BT) enabled mobile device for publishing data and multimedia content on one or more websites automatically or with minimal user intervention.” Ex. 1001, Abstr. In this method, a “client application” on the BT enabled mobile device “detects capture of data and multimedia content on the digital data capture device and initiates transfer of the captured data, multimedia content, and associated files” and “automatically publishes” it by transferring that data to a website. *See id.*

Figure 1 of the '030 patent, reproduced below, is a flowchart illustrating this method. *See* Ex. 1001, 3:6–9.

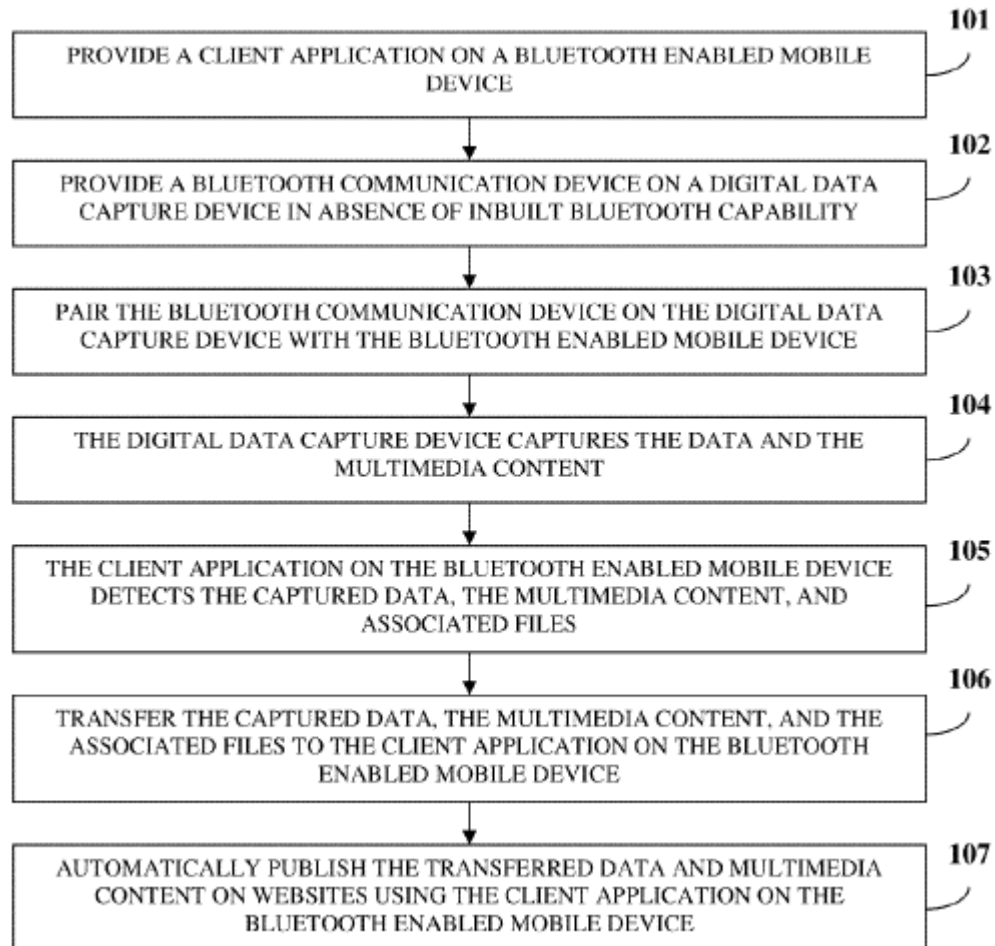


Figure 1 depicts steps 101–107. Steps 101 and 102 respectively provide a client application on the mobile device and a BT communication device on the capture device. At step 103, the BT communication device on the capture device is paired with the mobile device “to establish a connection between” the two. *Id.* at 3:56–58. Thereafter, data is captured (step 104), detected by the client application on the mobile device (step 105), and transferred to the client application on the mobile device (step 106) “using one or a combination of file transfer protocols.” *Id.* at 4:22–44. The client application then “automatically publishes” the transferred data on one or

more websites (step 107). *Id.* at 5:34–36. According to the Specification, the “transport protocol that is used between the client application . . . and the publishing service [on the website] may be hypertext transfer protocol (HTTP).” *Id.* at 10:4–7.

D. Challenged Claims

The Petition challenges claims 1, 2, 4–7, and 9–18. Claim 12 is illustrative and reproduced below with the bracketed annotations Petitioner uses to identify different limitations.

12[P] A method for transferring data to a remote internet server by a Bluetooth enabled mobile device comprising:

[12.1] providing a software module on the Bluetooth enabled mobile device, wherein the software module on the Bluetooth enabled mobile device is configured to perform steps comprising:

[12.2] establishing a paired secured connection between the Bluetooth enabled mobile device and a Bluetooth enabled data capture device, wherein paired secure Bluetooth connection uses cryptographic encryption key;

[12.3] receiving a message from the Bluetooth enabled data capture device, corresponding to supported data capability of the Bluetooth enabled data capture device;

[12.4] detecting new data acquired by the Bluetooth enabled data capture device for transfer, wherein detecting the new data for transfer comprises:

[12.5.1] sending a message to the Bluetooth enabled data capture device, over the established paired secure Bluetooth connection, to enable event notifications on the Bluetooth enabled data capture device corresponding to new data,

[12.5.2] wherein the new data is data acquired by Bluetooth enabled data capture device after establishing the secure Bluetooth pairing connection between the Bluetooth enabled data capture device and the Bluetooth enabled mobile device;

[12.6] enabling event notification listening on Bluetooth enabled mobile device, to listen for event notifications sent from the Bluetooth enabled data capture device, over the established paired secure Bluetooth connection;

[12.7] receiving, from the Bluetooth enabled data capture device, an event notification corresponding to existence of new data for transfer, over the established paired secure Bluetooth connection; and

[12.8] sending a request to the Bluetooth enabled data capture device, to get new data for transfer;

[12.9] receiving, by the Bluetooth enabled mobile device, encrypted data corresponding to the new data over the established Bluetooth paired secure wireless connection and obtaining new data from the received encrypted data using cryptographic encryption key; and

[12.10.1] transferring the obtained new data along with a user identifier to a remote internet server, comprising configuring the obtained new data to comprise an action setting and destination web address of a remote internet server, wherein action setting comprises one of a remote procedure call (RPC) method and hypertext transfer protocol (HTTP) method, and

[12.10.2] wherein the user identifier uniquely identifies a particular user of the internet service provided by a remote internet server.

Ex. 1001, 13:60–14:46.

Claims 1, 6, and 15 are also independent and recite limitations similar to those above with some differences. *See id.* at 11:50–12:43, 12:56–13:45, 14:53–16:14. For example, unlike claims 1 and 12, claims 6 and 15 do not recite sending or receiving a message corresponding to “supported data capacity” as in limitation 12.3. *Id.* Moreover, claims 6 and 15 refer to sending a “new data object,” as opposed to just “new data” as in claims 1 and 12, from the data capture device to the mobile device. *Id.* Claim 15 further recites that the “new data object comprises of new data, data associated with new data and time-stamp . . . wherein the time-stamp corresponds to a time when new data was acquired.” *Id.* at 15:19–20 (limitation 15.7).

E. Asserted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability:

Claim(s) Challenged	35 U.S.C. §²	Reference(s)/Basis
1, 2, 4–7, 9–18	103	Hiroishi, ³ Takahashi, ⁴ Bluetooth ⁵
1, 2, 4–7, 9–18	103	Hiroishi, Kahn, ⁶ Bluetooth
1, 2, 4–7, 9–14	103	Singh129, ⁷ Bluetooth
15–18	103	Singh129, Bluetooth, Takahashi

As does Petitioner, we refer to the first two grounds as Grounds 1A and 1B and the second two as Grounds 2A and 2B. In addition to the cited

² 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 Grounds 2A–B, we apply the AIA version of § 103 herein. That said, our decision does not turn on which version of § 103 is used.

³ Japanese Unexamined Patent Application Publication 2003-60953, published Feb. 28, 2003 (“Hiroishi”). The record includes the original Japanese language publication (Exhibit 1013), a translation (Exhibit 1011), and a certificate of translation (Exhibit 1012). Herein, we cite and refer to the certified translation (Exhibit 1011).

⁴ Japanese Unexamined Patent Application Publication 2005-303511, published Oct. 27, 2005 (“Takahashi”). The record includes the original Japanese language publication (Exhibit 1016), a translation (Exhibit 1014), and a certificate of translation (Exhibit 1015). Herein, we cite and refer to the certified translation (Exhibit 1014).

⁵ Petitioner cites two separate documents as “Bluetooth.” The first document is Bluetooth Specification Version 2.1 + EDR, dated July 26, 2007 (Exhibit 1019) (“Bluetooth Core Specification”). 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 (Exhibit 1032) (“Bluetooth Overview”).

⁶ US 2004/0004737 A1, published January 8, 2004 (Ex. 1017) (“Kahn”).

⁷ US 2009/0172129 A1, published July 2, 2009 (Ex. 1009) (“Singh129”).

references, Petitioner relies on the declaration of David B. Lett (Ex. 1030, “Lett Declaration”).

Before turning to our analysis of these grounds, we address Patent Owner’s arguments that we should exercise discretion to deny institution under 35 U.S.C. §§ 314(a), 316(b), and 325(d). *See* Prelim. Resp. 2–29.

III. DISCRETION UNDER 35 U.S.C. § 314(a)

Patent Owner argues that we should exercise discretion to deny institution in view of the *Fintiv*⁸ factors. *See* Prelim. Resp. 2–19. In particular, Patent Owner contends the Texas litigation “is already well-developed” and scheduled for trial beginning “on August 4, 2025, two months before the Board would issue a final written decision, if any, in this proceeding.” *Id.* at 2–3.

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*⁹ stipulation, i.e., Petitioner stipulates that it will “not to purse 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. 83 (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

⁸ *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (Mar. 20, 2020) (precedential) (“*Fintiv*”).

⁹ *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12, 18–19 (Dec. 1, 2020) (“*Sotera*”).

issued guidance stating that, when such a stipulation is presented, the PTAB will not discretionarily deny institution in view of the parallel litigation.

Ex. 1034, 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 ’030 patent and three of Patent Owner’s related patents. *See id.* at 11–15. 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 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 Texas 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. 1026, 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

petitions 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).

IV. DISCRETION UNDER 35 U.S.C. § 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*¹⁰ framework favors institution, and Patent Owner arguing that it favors discretionary denial. *See* Pet. 82; Prelim. Resp. 19–20.

Section 325(d) provides discretion to “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). We analyze this issue under the following two-part framework set forth in *Advanced Bionics*:

- (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 asserts that “substantially the same grounds” as those in the Petition have “not been previously presented to the office.” Pet. 82. Patent Owner does respond to Petitioner’s assertion as it relates to Grounds 1A–B, but instead limits its § 325(d) arguments to one of the references (Singh129)

¹⁰ *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020) (precedential).

in Grounds 2A–B. Prelim. Resp. 19–20. We likewise discern no reason to exercise discretion under § 325(d) to deny institution of the challenges in Grounds 1A–B.

Regarding Grounds 2A–B, Patent Owner argues “the Examiners were plainly aware of the existence of Singh129, inasmuch as it is listed on the face of the ’030 Patent (by way of [other related applications]).” Prelim. Resp. 20. This is true, but it does not resolve the first step of the *Advanced Bionics* framework because, in addition to Singh129, Grounds 2A–B rely on Bluetooth and Takahashi. Patent Owner does not contend that either Bluetooth or Takahashi were previously considered by the Examiner, nor does Patent Owner assert that Petitioner’s reliance on those references is cumulative of other art or arguments the Examiner considered. Thus, we do not agree that the same or substantially the same art and arguments in Grounds 2A–B were previously considered by the Office.

For the above reasons, we do not exercise discretion to deny *inter partes* review under § 325(d).

V. PATENT OWNER’S ARGUMENT UNDER 35 U.S.C. § 316(b)

In addition to its other discretionary denial 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. 19–20. 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 21. 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 19–29.

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 quotations 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, notwithstanding its merits, based on the policy considerations and concerns alleged by Patent Owner.

VI. ANALYSIS OF THE ASSERTED GROUNDS

A. Legal Standards

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).

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 on the basis of underlying factual determinations including (1) the

scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when in evidence, objective evidence of nonobviousness.¹¹ *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 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

Petitioner contends a person of ordinary skill in the art (“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 [of] consumer electronics, with exposure to digital camera technology and wireless communications.” Pet. 5 (citing Ex. 1030 ¶¶ 94–95). Patent Owner does not dispute or otherwise respond to Petitioner’s description of a POSITA in its Preliminary Response.

At this stage, we find Petitioner’s description of the level of ordinary skill in the art to be sufficiently supported by the record and apply it for purposes of this decision.

C. Claim Construction

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.

¹¹ Neither party submits objective indicia evidence at this stage.

282(b).” 37 C.F.R. § 42.100(b). Under this standard, we construe the claim terms in accordance with their ordinary and customary meaning to a POSITA. *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 the 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. 5–6. Patent Owner on the other hand proposes constructions for five claim terms.¹² *See* Prelim. Resp. 46–54. We address Patent Owner’s arguments in turn below.

i. Recited Order of Certain Operations

Patent Owner asserts that “the order of certain recited operations is key and limiting;” specifically Patent Owner contends that for all of the

¹² While the Preliminary Responses identifies several other terms Patent Owner calls “distinct terms of art recited in the Challenged Claims,” it only proposes claim constructions for five terms. *See* Prelim. Resp. 46.

challenged claims “each [step] must be performed in the order recited in the Claims, with the following exception: ‘providing a software module’ can occur in any order before the ‘detecting’ step.” Prelim. Resp. 47. 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 involving three of its other patents. *See id.* at 47 (citing Ex. 2014, 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 claimed should be construed to recite a certain order of operations.

ii. “along with”

In relevant part, limitation 12.10.1 recites “transferring the obtained new data *along with* a user identifier to a remote internet server.” Ex. 1001, 14:37–38 (emphasis added). Claims 1, 6, and 15 recite similar limitations. *See id.* at 12:38–41 (limitation 1.12), 13:40–43 (limitation 6.9), 16:5–7 (limitation 15.10).

Patent Owner argues that “along with” should be construed to mean “in addition to.” Prelim. Resp. 48 (quoting dictionary definition). Patent Owner also cites a passage from Application No. 11/901,802 (Ex. 2009, “the ’802 application”), which is incorporated by reference in the ’030 patent. *Id.* at 49 (quoting Ex. 2009 ¶ 47). According to Patent Owner, the ’802 application “uses the term ‘along with’ to clearly express a connection with ‘additional information’” such as user preferences, authentication information, and geographical codes. *Id.* Patent Owner concludes that “such complex settings could not possibly have been incorporated into a media file’s name, and because Petitioner makes no showing establishing this practice as of 2007, Petitioner’s arguments fail.” *Id.* at 50.

Patent Owner’s argument is unavailing. The term “along with” is a plain English term that according to Patent Owner’s dictionary definition can mean “in addition to” or “together with.” *See* Prelim. Resp. 48.

On the present record, we see no reason to depart from the term's ordinary meaning. The '030 patent does not use "along with" outside the claims. Those claims refer to transferring new data "along with" a user ID. *See, e.g.*, Ex. 1001, 13:37–38 (limitation 12.10.1). The passage Patent Owner cites from the '802 application (Ex. 2009 ¶ 47) refers to sending other types of information and does not appear to be relevant to the usage of "along with" in the challenged claims. In any event, that passage does not suggest any reason to depart from the term's ordinary meaning.

To the extent Patent Owner is asking us to adopt a construction of "along with" that would exclude from its scope a user ID sent along with new data as part of a file name associated with that data, we are unconvinced. On the present record, it seems that the ordinary meaning of "along with" would encompass such and, as explained above, Patent Owner has offered no evidence from the intrinsic record that suggests a reason to depart from that ordinary meaning. Accordingly, at this stage, we determine that "along with" does not require express construction.¹³

iii. "after the paired secure Bluetooth connection is established"

Patent Owner argues that we should construe the phrase "after the paired secure Bluetooth connection is established"¹⁴ to mean: "after the paired secure Bluetooth connection is established and maintained on a continuous basis." Prelim. Resp. 50–51.

¹³ We note that a similar conclusion was reached for one of Patent Owner's related patents. *See* IPR2019-00127, Paper 51, 18–19 (rejecting the same proposed construction of "along with").

¹⁴ This is the wording in claims 1 and 6. Claims 12 and 15 recite slightly different language. *See* Ex. 1001, 14:16–17 ("after establishing the secure Bluetooth pairing connection").

The only support Patent Owner offers for this argument is a citation to the same district court claim construction order discussed above. *See id.* (citing Ex. 2014 (N.D. Cal. Order) 13, 15, 23). Patent Owner again makes no substantive argument discussing the California court’s analysis, much less explaining why it is applicable to the claims here, nor does Patent Owner present a claim construction analysis consistent with the principles articulated in *Phillips*, 415 F.3d 1303. Accordingly, on the current record, Patent Owner fails to adequately support its proposed construction.

iv. “object”

The word “object” is recited in claims 6 and 15 as part of the phrase “new data object.” Patent Owner argues an “object” is not a “file,” which Patent Owner contends is Petitioner’s position. Prelim. Resp. 51. Patent Owner contends an “object” is “[a] programming element that has state (such as, for example, a programming language variable, data structure, function, or method), and which has associated operations and is accessed via an identifier.” *Id.* at 53. Patent Owner argues its proposed construction is “widely acknowledged,” citing two excerpts of screenshots from Wikipedia pasted into its Preliminary Response. *Id.* at 51.

Petitioner contends no construction is needed because “[t]he claims define ‘new data object’” by specifying that it includes three elements: “1) new data, 2) data associated with new data, and 3) a timestamp as data signal notification.” Prelim. Reply 5. While noting that “the term ‘new data object’ is not found in the ’030 patent specification,” Petitioner argues that the specification is instructive because it “discusses transferring files between the data capture device and the cellular phone” and thus “seems to conflate a ‘new-data object’ with a file.” *Id.* at 5–6 (citing Ex. 1001, 4:38–5:17).

On the current record, we agree with Petitioner. The specification clearly describes the transfer of files between the data capture and mobile devices. *See, e.g.*, Ex. 1001, 4:34–44 (explaining data is transferred “using one or a combination of file transfer protocols”). As Petitioner points out, there does not appear to be any separate discussion in the specification of the transfer of “data objects.” Nor does Patent Owner identify any other basis in the intrinsic record to interpret the term “data object” to exclude a file. In view of the express disclosure of file transfer in the intrinsic record, we do not find Patent Owner’s extrinsic sources (i.e., its two screenshots of Wikipedia excerpts) persuasive to support its narrower claim construction. We also agree with Petitioner that, at least for purposes of this decision, the ordinary meaning and surrounding claim language provide sufficient context such that no express construction is necessary.

v. *“supported data capability”*

This term is recited in limitations 1.3 and 12.3 of claims 1 and 12. Patent Owner argues that “[t]he intrinsic record establishes the proper construction for the phrase . . . would have been understood as: ‘Types of data (*e.g.*, Audio, Video, Text, or Images).’” Prelim. Resp. 53 (citing Ex. 1001, 2:48–52, 4:22–25; 5:55–57, Claims 4, 9, 13, and 16).

Petitioner contends that Patent Owner’s “construction is narrower than the plain meaning of the term, and should be rejected for lack of evidentiary support by the intrinsic record.” Prelim. Reply 7. According to Petitioner, the specification “does not teach ‘sending a message to the Bluetooth enabled mobile device, corresponding to supported data capability of the Bluetooth enabled data capture device’” as recited in limitation 1.3 (and similarly in limitation 12.3). *Id.* Petitioner contends that the limited

discussion of “capabilities” in the specification “is talking about underlying capabilities of the device, and is not limited to a type of data.” *Id.* (citing Ex. 1001, 2:7–13, 3:41–48, 5:4–7, 6:12–16, 7:23–27, 7:52–55, 8:28–32, 8:62–65, 10:1–4). Thus, to the extent these sections are relevant to this term, Petitioner argues “they suggest that the plain meaning of supported data capabilities is broader than ‘types of data.’” *Id.*

On the current record, we agree with Petitioner. The phrase “supported data capability” appears only in claims 1 and 12 and is not used elsewhere in the specification. The portions of the intrinsic record that Patent Owner cites provide examples of different types of data that may be captured and transmitted. *See* Ex. 1001, 2:48–52 (“method and system disclosed herein thereby enables the user to capture data and multimedia content, for example, audio, video, text, and images”), 4:22–25, 5:55–57 (similar); claims 4, 9, 13, 16 (further specifying that the “new data for transfer” comprises “audio data, video data, image data, text data, or digital data”). However, Patent Owner has not demonstrated that there is a connection between these passages and the term “supported data capability.” Even if it had, nothing in the passages Patent Owner cites purports to limit the invention to such. That is, even if we assume that types of data are a category of supported data capability, we discern nothing in the portions of the intrinsic record Patent Owner cites that limits the term “supported data capability” to only that category. Indeed, the ordinary meaning of data capability would appear to include other capabilities of the device as Petitioner suggests. Thus, on the current record, we do not find that Patent Owner’s narrower construction is warranted.

D. Asserted References

i. Hiroishi

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.

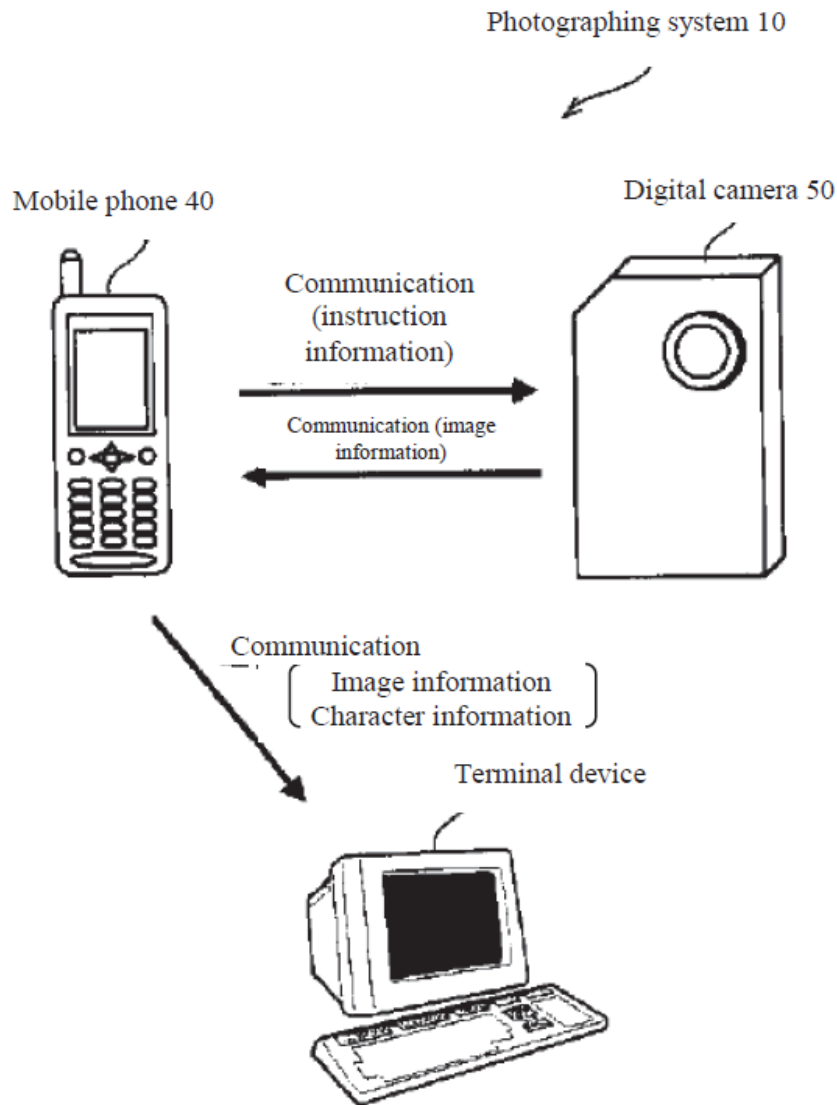


Figure 1 depicts photographing system 10 having mobile phone 40, digital camera 50, and a terminal device. *Id.* ¶ 42. Digital camera 50 acquires image information showing an object image, and sequentially transmits the acquired image information to mobile phone 40. *Id.* at code (57).

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.

ii. Takahashi

Takahashi, titled “Image Storage System, Mobile Terminal, Image Storage Device, Image Storage Method, Image Transmission Program, and Image Storage Program,” describes a system and method in which “[i]mmediately after capturing an image, a mobile telephone 1 divides the captured image data into predetermined size [data] and sequentially sends the data to an image storage server 4 as an HTTP request.” Ex. 1014, Abstr., ¶¶ 28, 30 (brackets around “data” in original).

According to Takahashi, a “division number (Ex. 5/10, or the like)” need not be included in the HTTP request because the mobile phone “adopts a sequential transmission rule for transmitting a divided file one at a time and transmitting the next divided file after waiting for the response of the reception completion on the image storage server [] side.” Ex. 1014 ¶ 58. However, Takahashi also explains that it is not limited to such and a “division number may also be attached and sent, if needed.” *Id.* In addition,

Takahashi teaches that “a user ID specific to a user” is included in the file name for the captured image data such that after the image is transmitted to the server “a user can be identified by the file name of the image data, without having to authenticate the user with a password, or the like.” *Id.* ¶¶ 32, 35, 56 (explaining that the file name includes the user ID and system date).

iii. Bluetooth

As noted above (*supra* footnote 5), Petitioner cites two separate documents for “Bluetooth,” i.e., the Bluetooth Core Specification (Ex. 1019) and Bluetooth Overview (Ex. 1032).

The Bluetooth Core Specification is a specification of the Bluetooth System, Covered Core Package version 2.1 + EDR [Enhanced Data Rate] dated July 2007. Ex. 1019, 1, 45.¹⁵ The Bluetooth Core Specification is an extensive document comprising over 1400 pages. Among other things, it describes Secure Simple Pairing (*id.* at 131–36), LMP [link manager protocol]-pairing (*id.* at 88, 1260, 1269–70), payload format 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.¹⁶ Ex. 1032, 1. It states, “Bluetooth wireless technology will serve primarily as

¹⁵ For Exhibits 1019 and 1032 we use the page numbering applied to the bottom middle of each page.

¹⁶ 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 and the 2.1 + EDR version in the Bluetooth Core Specification. To the extent either side contends there are

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.*

iv. *Kahn*

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.

distinctions that impact the issues in this case, they should present those arguments in their papers at trial.

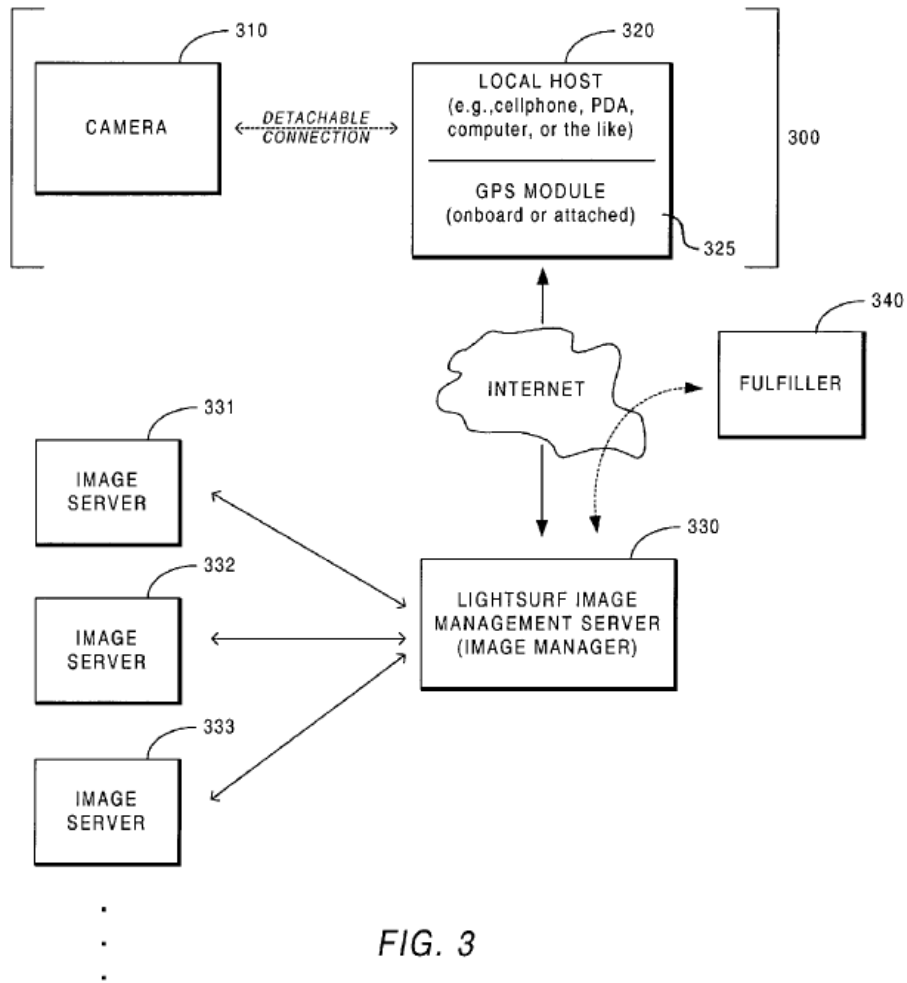


Figure 3 above depicts camera 310 (which is preferably a wireless camera), local host 320 (such as a cellular phone), and GPS module 325, which provides real-time GPS information to the host 320. *Id.* ¶ 55.

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.

v. *Singh129*

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 ’030 patent). Ex. 1009, codes (54), (43), (21), (22). Singh129 has the same disclosure as the specification of the ’030 patent. *Compare* Ex. 1001, *with* Ex. 1009.

As will be discussed further below (*see infra* § VI.F), Patent Owner contends that Singh129 is not prior art. *See* Prelim. Resp. 85–86.

E. Petitioner’s Grounds 1A–B

In Ground 1A, Petitioner contends claims 1, 2, 4–7, and 9–18 would have been obvious over Hiroshi, Takahashi, and Bluetooth. Pet. 11–51. For Ground 1B, Petitioner challenges the same claims over largely the same combination of art, but substitutes the teachings in Kahn for those in Takahashi. *See id.* at 51–68. At this stage, Patent Owner argues that the combinations asserted in Grounds 1A–B fail to teach or suggest a number of limitations. *See* Prelim. Resp. 59–84.

After considering the arguments and evidence on the current record, we find that for purposes of institution, Petitioner has shown a reasonable likelihood of establishing that claims 1, 2, 4–7, and 9–18 are unpatentable as obvious over the combination of references in both Ground 1A and 1B.

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

i. Overview of Petitioner’s Arguments

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

a control program that allows the photographer to remotely control the camera via the mobile phone to take self-portraits. *See* Pet. 20–24 (citing, e.g., Ex. 1011 ¶¶ 4, 42, 46–49, 51, 61, 68–69, Figs. 1, 2).¹⁷ Petitioner maps Hiroishi’s phone, control program, and camera respectively to the recited “mobile device,” “software module,” and “data capture device.” *See id.* at 20, 23, 26.

According to Petitioner, to the extent “Hiroishi does not expressly disclose that the Bluetooth pairing . . . includes using a cryptographic encryption key,” as recited in limitation 12.2, “it would have been obvious to a POSITA to modify Hiroishi to include this limitation” because the use of “cryptographic encryption keys was a standard and well known part of the Bluetooth specification.” Pet. 24–25 (citing Ex. 1019, 410–417 (describing authentication based on a “secret key” shared between devices)). Petitioner alternatively argues that it would have been obvious to use cryptographic authentication between Hiroishi’s camera and mobile phone because it was “routine at the time of the invention” and “would have ensured the secure transmission of image files and related data between the two devices.” Pet. 25 (citing, e.g., Ex. 1030 ¶¶ 47–60, 170–180).

Regarding limitation 12.3, Petitioner contends the “combination’s software module on the Bluetooth enabled mobile device is configured to perform the step of receiving a message (LMP_features_res) from the Bluetooth enabled data capture device (Hiroishi’s digital camera 50), corresponding to supported data capability.” Pet. 26. Relying on the Bluetooth Core Specification, Petitioner contends the applicable BT

¹⁷ For purposes of this overview, we treat Petitioner’s arguments for independent claim 12 as representative.

protocols described the “exchange of supported features” such as “max supported page,” “slots per packet, “Adaptive Frequency Hopping (AFH) capability, Channel Quality Driven Data Rate, and Enhanced Data Rate (EDR)” between BT devices. *Id.* (citing, e.g., Ex. 1019, 133, 182, 384–392, 441). Petitioner argues such features correspond to “supported data capability” as recited in limitation 12.3. *Id.* at 26–27.

Regarding limitation 12.4, Petitioner argues that “Hiroishi teaches detection of new-data by sending a ‘release instruction’ from the cellular phone 40 to the digital camera 50 after establishing a Bluetooth connection” that “caus[es] it to acquire a new image.” Pet. 27–28 (citing Ex. 1011, Abstr., ¶¶ 12, 34, 71–78, Fig. 5). According to Petitioner, the camera then generates thumbnail images that are sent to the phone and “[t]he reception of the thumbnail images is the detection of the new-data acquired.” *Id.* at 28 (citing Ex. 1030 ¶¶ 186–187).

Regarding the “event notification” in limitations 12.5.1, 12.6 and 12.7, Petitioner contends “there are a variety of signals [in the asserted combination] that would perform the event notification function” including the sending of thumbnails to notify the phone “that the pictures represented by the thumbnails are available.” Pet. 28–29 (citing Ex. 1011 ¶¶ 81–82, 105, Fig. 7C; Ex. 1030 ¶ 191). According to Petitioner, Hiroishi teaches that the phone “send[s] a message (thumbnail transmission instruction) to the Bluetooth enabled camera to enable event notifications” on the camera. *Id.* at 29–31. Petitioner further contends that in the “combination, the detecting step . . . includes enabling event notification listening (activating the mobile phone code that ‘waits’ to receive thumbnail images from the camera) on Bluetooth enabled mobile device, to listen (‘wait’) for event notifications

(thumbnail images) sent from the Bluetooth enabled data capture device (digital camera 50).” *Id.* at 32–33 (citing Ex. 1011 ¶¶ 102, 104; Ex. 1030 ¶¶ 199–202). According to Petitioner, in the asserted combination, after the thumbnail images are received (limitation 12.7), the phone sends a request to the camera to send the images (limitation 12.8), and the encrypted data is received over the BT connection (limitation 12.9). *See* Pet. 33–39 (citing evidence).

Regarding the transfer of “new data along with a user identifier to a remote internet server” (limitation 12.10.1), Petitioner argues that “Hiroishi establishes that the mobile phone can communicate with one or more remote servers” to upload the new data, but “Hiroishi is silent as to the action setting comprising a HTTP method.” Pet. 39–41 (citing Ex. 1011 ¶ 110; Ex. 1030 ¶¶ 216–221). For Ground 1A, Petitioner relies on Takahashi for its teaching of “transmitting images to a remote server using HTTP.” *Id.* at 41–42 (citing, e.g., Ex. 1014 ¶¶ 68–72). For Ground 1B, Petitioner argues that Kahn teaches “wirelessly transferring image files from a mobile device to a publishing website over the Internet with an HTTP action setting.” *Id.* at 59 (citing Ex. 1017 ¶¶ 56, 77). In both instances, Petitioner contends it would have been obvious for Hiroishi’s phone application to use HTTP to publish images over a remote internet server, as taught in Takahashi or Kahn, “[g]iven the widespread use of HTTP,” the “ubiquitous” nature of “photo-sharing websites and personal blogs,” and the fact that doing so would have “provided [a] straightforward benefit to the user of the mobile device in Hiroishi: the ability to upload image files and an action setting to a publishing service using an existing HTTP connection.” Pet. 16–17, 41–42,

54–55, 59–60 (citing, e.g., Ex. 1030 ¶¶ 145–147, 216–221, 275–293, 333–338).

Regarding the portions of limitations 12.10.1 and 12.10.2 describing the “user identifier,” Petitioner cites Takahashi and Kahn’s teachings for Ground 1A and 1B respectively teaching procedures for authenticating the user (e.g., with login credentials) uploading data from their mobile device to the remote server. *See* Pet. 42–44, 59–61 (citing, e.g., Ex. 1014 ¶¶ 10, 55, 60; Ex. 1017 ¶¶ 57, 74, 82, 84, Fig. 5C; Ex. 1030 ¶¶ 222–225).

Having reviewed Petitioner’s showing on the preliminary record, we find it sufficient to meet the burden for institution. Patent Owner’s arguments to the contrary are unavailing, as explained below.

ii. Patent Owner’s Arguments for Grounds 1A–B

Patent Owner disputes that the asserted combination teaches or suggests several limitations that appear in one or more of the independent claims. We address Patent Owner’s arguments concerning those limitations in the order presented in the Preliminary Response.

a. Supported Data Capability

Patent Owner disputes that Petitioner has demonstrated a reasonable likelihood that the cited prior art teaches or suggests “supported data capability” limitations in claims 1 and 12. *See* Prelim. Resp. 59–63.

According to Patent Owner, “the step of ‘sending’ (or ‘receiving’) a message from the Bluetooth enabled data capture device ‘corresponding to supported data capability of the Bluetooth enabled data capture device,’ must necessarily occur *after* the establishment of the Layer 2 (Link Layer) connection between the data capture device and the mobile device or at least pairing.” Prelim. Resp. 60–61 (citing Ex. 1001, claims 1 and 12). For this

reason, Patent Owner argues that Petitioner’s reliance on “the ‘LMP_features_res’ option of the Bluetooth Specification” is misplaced because Link Manager Protocol (LMP) “proscribes the transmission of messages between devices *before the Layer 2 Link is even established*” and “far in advance of the establishment of any ‘Paired Connection.’” Prelim. Resp. 59–62 (citing Ex. 1019, 388, 861).

As an initial matter, Patent Owner’s argument only applies to two of the four challenged independent claims. There is no recitation of sending or receiving a message from the capture device corresponding to its “supported data capability” in claims 6 and 15. Thus, regardless of its merits, this argument does not rebut Petitioner’s showing for claims 6 and 15, which we find to be sufficient for institution.

As it relates to claims 1 and 12, Patent Owner’s argument raises several issues that would benefit from further development at trial. First, Patent Owner’s argument is premised on the assumption the message “corresponding to the supported data capability” in limitations 1.3 and 12.3 must be sent or received *after* the paired BT connection has been established in limitations 1.2 and 12.2. But unlike other steps recited in these claims, the steps in limitations 1.3 and 12.3 do not expressly recite that they occur after pairing.¹⁸ While Patent Owner generally contends the steps must occur in their recited order, neither side has sufficiently addressed whether there is a required ordering for these particular steps. *See supra* § VI.C.i; Prelim.

¹⁸ Several limitations in claims 1 and 12 expressly recite that their steps occur “after the paired secure Bluetooth connection is established” or “over the established paired Bluetooth connection.” *See* Pet. v–vi (limitations 1.4, 1.6, 1.7, 1.10, and 1.12), ix–x (limitations 12.5.1, 12.5.2, 12.6, 12.7, and 12.9).

Reply 8 (asserting the “prior art satisfies the order of certain operations” “[w]ithout commenting on the merits of PO’s constructions”).

Second, Patent Owner cites a flowchart from the Bluetooth Core Specification showing that “Step2:FeaturesExchange” occurs before “Step7a:Optional Pairing.” Prelim. Resp. 62 (citing Ex. 1019, 861). Patent Owner asserts the “FeaturesExchange” in this flowchart corresponds to the “‘LMP_features_res’ message relied upon by Petitioner.” *Id.* at 61. But that assertion is merely attorney argument at this stage. To the extent Patent Owner continues this argument at trial, it would benefit from further explanation and supporting evidence (e.g., expert testimony) in Patent Owner’s response.

b. 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. 63–65.

All of the independent claims recite a step of “detecting” new data for transfer, but the language differs somewhat between claims. Claim 1 recites “detecting and signaling new data for transfer” comprising the capture device “receiving a request to get new data” and “a request to enable event notifications for new data” from the mobile device, “enabling event notification,” “determining existence of the new data,” and “sending event notification as a signal” to the mobile device. Ex. 1001, 11:65–12:21. Claim 6 is similar to claim 1. *See id.* at 13:1–21. Claims 12 and 15 recite “detecting new data” comprising the mobile device “sending a message” to the data capture device to “enable event notifications,” “enabling event notification

listening” on the mobile device, “receiving” an event notification “corresponding to existence of new data” and “sending a request” to the capture device to get the data. *Id.* at 14:7–30. Stated more succinctly, and despite differences in wording, the independent claims generally recite that new data is detected by sending a message from the mobile device to the data capture device and then waiting for an event notification that signals there is new data for transfer.

As explained above, Petitioner contends that Hiroishi teaches this functionality when, after establishing a BT connection with the camera, the mobile device sends a thumbnail transmission instruction to the camera that results in thumbnail images of images stored on the camera being sent to the mobile device. Pet. 29–30. On the current record, we agree with Petitioner’s showing that Hiroishi’s thumbnail images are an “event notification,” as recited in the challenged claims, and that “reception of the thumbnail images is detection of new-data acquired.” *Id.* at 28 (citing Ex. 1030 ¶¶ 187) (emphasis omitted). On the current record, we further agree with Petitioner’s showing that a POSITA would understand while the mobile phone waits to receive thumbnails from the camera it is “listening for event notifications.” *Id.* at 32 (citing Ex. 1011 ¶¶ 102, 104; Ex. 1030 ¶¶ 199–202).

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. 64–65. On the present record, we disagree. Indeed, it seems that a “response/reply by the camera to an express instruction” from the mobile device is exactly the type of functionality the challenged claims contemplate that “detecting”

comprises. *See, e.g.*, Pet. v–vi (limitation 1.6 reciting that “detecting” new data comprises “receiving a request to get new data, at the Bluetooth enabled data capture device, from the Bluetooth enabled mobile device” and limitation 1.10 reciting “sending event notification” back to the mobile device “as a signal . . . corresponding to the existence of new data”).

Accordingly, Patent Owner has not persuasively established at this stage that waiting for a response is outside of the plain meaning of the claim term “detecting.”

c. Enabling Event Notification

Patent Owner disputes that Petitioner has demonstrated a reasonable likelihood that the cited prior art teaches or suggests “enabling event notification” as recited in claims 1, 12, and 15. *See* Prelim. Resp. 64–72; Pet. 35–42, 51–52.

At the outset, we note a distinction between the event notification language in claim 1 and that in claims 12 and 15. Claim 1 recites “enabling event notification on . . . data capture device,” whereas claims 12 and 15 recite “enabling event notification listening on . . . mobile device.” Pet. v (limitation 1.8), ix, xi (limitations 12.6 and 15.5). Petitioner contends that “Hiroishi teaches sending a message (thumbnail transmission instruction) to the Bluetooth enabled camera to enable event notifications (thumbnail images)” on the capture device and “enabling event notification listening (activating the mobile phone code that ‘waits’ to receive thumbnail images from the camera) on Bluetooth enabled mobile device, to listen (‘wait’) for event notifications (thumbnail images).” Pet. 29, 32. On the current record, we agree with Petitioner that this mapping accords with the ordinary meaning of “enabling event notifications” as recited in claims 1, 12, and 15.

Patent Owner argues that “the referenced ‘*thumbnail transmission instruction*’ is the information for instructing the transmission of the image data” and “[a]s such, it is plainly *not* ‘to enable event notifications.’”

Prelim. Resp. 66. Patent Owner further contends that the “‘enablement of event notifications’ as claimed is a single occurrence,” whereas the transfer of thumbnail instructions “would be required for every new image requested by the phone.” *Id.* at 66–67. According to Patent Owner, “[t]his is plainly not the way in which ‘enabling event notifications’ works, and would wholly defeat the purposes of enabling event notifications in the first place.” *Id.*

On the current record, Patent Owner’s arguments are unavailing because these arguments assume that the recited enabling of event notifications requires particular functionality without offering any persuasive explanation of what exactly that functionality is and why the claim language should be narrowly interpreted to require it. For example, Patent Owner fails to cite evidence from the intrinsic record or elsewhere suggesting that an instruction to transmit thumbnails cannot serve to enable event notifications on the data capture device or that the enablement of event notifications must be a single occurrence that is not repeated for subsequent data transmissions.

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. 67 (citing Ex. 1011 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 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 at trial.

Patent Owner also argues that “when a thumbnail transmission instruction is sent, the received data is a ‘plurality’ of thumbnails.” Prelim. Resp. 68 (citing Ex. 1011 ¶¶ 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.

Patent Owner also takes issue with Petitioner’s “position that the ‘waiting’ component of Hiroishi ‘enables event notification listening’ for event notifications that are for new data.” Prelim. Resp. 71–72. According to Patent Owner, “a POSITA would readily appreciate that the application of the ‘wait’ in Hiroishi varies throughout the disclosure, but in no sense is it *ever* used to define any act of enabling event notification listening.” *Id.* (quoting Ex. 1011 ¶¶ 2, 73, 91, 93, 97, 104, 106–107, 111). Again, on the

current record, Patent Owner’s argument is unavailing because it assumes that “enabling event notification listening” requires particular functionality without offering any persuasive explanation of why that is the case. The usage of the verb “waits” in the passages Patent Owner quotes from Hiroishi appears to be entirely consistent with Petitioner’s argument that when Hiroishi’s mobile phone waits for thumbnails “the mobile phone [is] listening for event notifications.” Pet. 32–33 (citing Ex. 1011 ¶¶ 102, 104; Ex. 1030 ¶¶ 199–202). Patent Owner fails to explain how the fact that some of these passages refer to waiting in the context of other functionality (i.e., that the application of wait “varies” as Patent Owner asserts) detracts from Petitioner’s showing.

d. Pairing and Cryptographic Authentication

With some minor variation, the challenged independent claims recite a “paired secure Bluetooth connection . . . wherein the paired secure Bluetooth connection uses cryptographic encryption key.” Pet. v, vii, ix, xi (limitations 1.2, 6.2, 12.2, and 15.2).

Petitioner argues that Hiroishi teaches pairing, i.e., “two-way communication between a phone and camera via Bluetooth.” *See* Pet. 24 (citing Ex. 1011 ¶¶ 66–67). As noted above, Petitioner contends that to the extent Hiroishi does not expressly disclose the use of a cryptographic encryption key for this pairing, it would have been obvious to do so for several reasons, including because the use of such an encryption key is described in Bluetooth and would have made the connection more secure. *See supra* § VI.E.i; *see also* Pet. 19, 24–25, 37–39 (citing evidence).

Patent Owner argues that Petitioner presents no evidence “a POSITA would have elected to use pairing and cryptographic authentication from

among the countless possible combinations available under the Bluetooth standard.” Prelim. Resp. 73. 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 76. Patent Owner also argues that a “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 transfer of image files. *See id.* at 76–78 (citing Ex. 2015, 15–17).

For purposes of institution, we find that Petitioner has demonstrated a reasonable likelihood that both pairing and cryptographic authentication were taught or suggested by the cited prior art, for the reasons discussed in the Petition. *See* Pet. 24–25, 37–39. 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 two-way communication between the devices via Bluetooth. *See* Pet. 24; Ex. 1011 ¶ 66. Petitioner has also adequately established for purposes of institution that it would have been obvious to use a cryptographic authentication key because it was routine and would advantageously ensure the secure transmission of image files and related data between the two devices. *See* Pet. 24–25, 37–39; Ex. 1030 ¶¶ 47–60, 170–180, 210–215; Ex. 1019, 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.

e. Along With

With some minor variation, the challenged independent claims recite sending “obtained new data along with a user identifier” to a remote internet server. Pet. vi, viii, x, xi (limitations 1.12, 6.9, 12.10.1, and 15.10).

For the combination in Ground 1A, Petitioner asserts that “a user identifier is sent with the transmission of the images” to a remote internet server, “similar to the image file name described by Takahashi.” Pet. 14 (citing Ex. 1030 ¶ 140). That is, according to Petitioner, Takahashi discloses a user ID that uniquely identifies the owner of the images in the file name of the image data. *Id.* at 17 (citing Ex. 1014 ¶¶ 55, 66; Ex. 1030 ¶ 148).

Patent Owner contends that including the user ID in the file name of the new data, as taught by Takahashi, and sending it to the remote server does not satisfy the recited requirement of sending the new data “along with” a user ID according to its proposed claim construction of that term. Prelim. Resp. 80. This argument is unavailing. As explained above, on the current record, we do not agree with Patent Owner’s proposed construction or its attempt to exclude the sending a user identifier along with the new data as part of its file name. *See supra* § VI.C.ii.

f. HTTP in Kahn

With some minor variation, the challenged independent claims recite the use of “action setting” comprising, inter alia, an HTTP method, as part of process for transferring data to the remote server. Pet. vi, viii, x, xi (limitations 1.12, 6.9, 12.10.1, and 15.10).

For the combination in Ground 1B, Petitioner cites Kahn’s teaching of using an HTTP action setting to upload images and user authentication credentials from the mobile phone to a remote server. *See, e.g.*, Pet. 58–61 (citing Ex. 1017 ¶¶ 56, 74, 77, 82, 84; Ex. 1030 ¶¶ 333–338). Mr. Lett additionally explains “[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 ¶ 336 *see also* Pet. 54; Ex. 1021, 5:49–56 (describing the use of HTTP to send images from the phone to the server).

Patent Owner argues that “Kahn actually uses WMTP for media upload and login – *not HTTP*.” Prelim. Resp. 80; *see also id.* at 82–83 (citing reference to “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 81. 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 84 (citing Ex. 1017 ¶¶ 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 action

setting to transfer images and a user authentication credential to a remote server, for the reasons articulated in the Petition. *See* Pet. 54, 58–61. Patent Owner reads Kahn too narrowly. Although Kahn’s Figures 5C and 5D refer to “WMTP”¹⁹ for transferring images, Kahn elsewhere specifically teaches use of HTTP for communication between the mobile phone and image management server. *See* Ex. 1017 ¶ 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 communication technique for sending images from a phone to a server. *See, e.g.*, Pet. 54; Ex. 1021, 5:49–56; Ex. 1030 ¶ 336.

iii. Conclusion – Grounds 1A–B

After considering the arguments and cited evidence of record, we determine that for purposes of institution, Petitioner sufficiently shows that both the combination of Hiroishi, Takahashi and Bluetooth in Ground 1A and the combination of Hiroishi, Kahn, and Bluetooth in Ground 1B teach or suggest each limitation of claims 1, 2, 4–7 and 9–18,²⁰ 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. 11–68. Accordingly, on this record, Petitioner shows a reasonable likelihood of prevailing on Grounds 1A–B, and on this basis, we institute an *inter partes* review of all challenged claims. *See* 37 C.F.R. § 42.208(a).

¹⁹ While the term “WMTP” appears in these figures, it does not seem to be defined or discussed elsewhere in Kahn.

²⁰ At this stage, Patent Owner does not make any additional arguments against Petitioner’s showing for the dependent claims.

We now turn to providing guidance on our current view of the parties' arguments concerning Grounds 2A–B.

F. Petitioner's Grounds 2A–B

In Ground 2A, Petitioner contends claims 1, 2, 4–7, and 9–14 would have been obvious over Singh129 and Bluetooth. *See* Pet. 68–78. For Ground 2B, Petitioner adds teachings from Takahashi to its combination of Singh129 and Bluetooth, urging that claims 15–18 would have been obvious over the same. *Id.* at 78–81.

As discussed above (*see supra* § VI.D.v), 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 '030 patent), and has the same disclosure as the specification of the '030 patent. *See* Pet. 60; Prelim. Resp. 85–86 (representing “Singh129 is a parent to the '030 Patent, and . . . no new matter was added in any intervening application”); *compare* Ex. 1001, *with* Ex. 1009. Because Singh129 is within the priority chain of the '030 patent, a threshold question is whether it qualifies as prior art to the challenged claims.

Indeed, the issue of whether Singh129 qualifies as prior art is the only challenge to Petitioner's showing in Grounds 2A–B that Patent Owner raises in its Preliminary Response. *See* Prelim. Resp. 43–46, 85–86. Because the burden for institution has been met for Grounds 1A–B, we need not determine whether Petitioner has also shown a reasonable likelihood of prevailing on the challenges in Grounds 2A–B. However, to provide guidance for developing this issue at trial, we provide some initial thoughts regarding the parties' arguments concerning Singh129's status as prior art. *See* Pet. 8–10; Prelim. Resp. 43–46, 85–86.

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.

Petitioner identifies several limitations it contends lack written description support in the '303 and other priority applications.²¹ Pet. 8–9. These limitations generally relate to encrypting data captured on the data capture device using a “cryptographic encryption key” and transferring/receiving the encrypted data from the data capture device on the mobile device as recited in claims 1, 6, 12, and 15 (limitations 1.11–12, 6.8–6.9, 12.9, and 15.8–9); the sending/receiving of a message corresponding to the “supported data capability” of the data capture device in claims 1 and 12 (limitations 1.3 and 12.3); and a new data object that comprises “time-stamp” as recited in claim 15 (limitation 15.7). *Id.* If Petitioner succeeds in establishing these limitations lack written description support in the priority applications, then the challenged claims will not receive the benefit of the priority applications’ earlier filing dates and Singh¹²⁹ will qualify as prior art.

On the current record, Petitioner has shown a reasonable likelihood that it will succeed in establishing that the claim limitations it identifies lack written description support in the priority applications. “[T]he hallmark of written description is disclosure” and to demonstrate possession of the recited subject matter that disclosure “must ‘clearly allow persons of ordinary skill in the art to recognize that [the] inventor invented what is claimed.’” *Ariad Pharms.*, 598 F.3d at 1351 (quoting *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1562–63 (Fed. Cir. 1991)). Here, however, the text of these limitations and more generally the terms “encryption key,”

²¹ In addition to the '303 and other continuation applications, which share the same disclosure as the '030 patent, the '030 patent also claims priority to Provisional Application No. 61/017,202 (“the '202 application,” Ex. 2020).

“supported data capability,” and “time-stamp” do not appear in the priority applications. It may be that an argument can be made that the written description nevertheless describes the functionality in these limitations using wording that differs from the language recited in the claims. *See Ariad*, 598 F.3d at 1352 (noting that the written description need not “recite the claimed invention *in haec verba*”). However, on the current record, the arguments Patent Owner offers on this point are unavailing.

Patent Owner points to three statements in the ’202 application that it contends provide written description support for the limitations Petitioner identifies relating to the use of a cryptographic encryption key to encrypt and transmit encrypted data from the data capture device to the mobile device. Prelim. Resp. 43–44. These statements are the following:

- (1) “A BT device that wants to communicate only with a trusted device can cryptographically authenticate the identity of another BT device.”
- (2) “The program will use various security, encryption and compression techniques to enhance the overall user experience.”
- (3) “BT provides a method of connecting and exchanging information between devices such as mobile phones, laptops, personal computers (PCs), printers, and digital cameras over a secure and globally unlicensed short-range radio frequency.”

Ex. 2020, 5:5–6, 15:16–18, 4:26–29; *see also* Ex. 1009 ¶¶ 21, 48, 20 (same).

The first of these statements appears to refer to something different than what is recited in the limitations Petitioner identifies as lacking written description, that is, it refers to the authentication of a BT device as part of the pairing process as opposed to the encrypting and transmission of

encrypted data after that pairing has occurred. *See* Ex. 2020, 5:1–11 (including this statement as part of a longer description of the “pairing process”). The second and third are general statements that at this stage of the proceeding Patent Owner has not sufficiently connected to the particular limitations at issue. *See* Prelim. Resp. 43–44 (asserting without explanation that “the security and encryption disclosures are in full compliance with § 112”). In particular, Patent Owner does not explain how the statements it identifies rebut Petitioner’s showing that there is no “description of a data capture device encrypting acquired data or transferring encrypted data to a mobile device . . . and thus no written description of a mobile device receiving/obtaining encrypted data from the data capture device.” Pet. 10 (citing Ex. 1030 ¶¶ 120).

For the “supported data capability” limitations in claims 1 and 12, Patent Owner argues that “the ’202 Application plainly discloses the use of *handshake protocol* between the data capture device and the mobile phone” and that a POSITA would have understood “that such ‘handshake protocol’ provided a way for two devices to negotiate parameters, data rates, features, and capabilities.” Prelim. Resp. 44–45 (citing Ex. 2020, 6:21–24). On the current record, Patent Owner’s argument as to what a POSITA would understand is merely attorney argument, which is not persuasive to overcome Petitioner’s showing.²²

²² The Preliminary Response quotes statements from two unnamed, online sources, identifying them only by URL. *See* Prelim. Resp. 45. It is unclear whether and how these statements support Patent Owner’s position as to the understanding of a POSITA at the relevant time period. Moreover, if Patent Owner intends to offer such sources as evidence in this proceeding, it should file them as exhibits.

Finally, Patent Owner offers no response at all to Petitioner's showing that the new data object comprising "time-stamp" in limitation 15.7 lacks written description in the priority applications. *See generally* Prelim. Resp. 43–46, 85–86. Thus, even if Patent Owner's other arguments were persuasive, they would not entirely rebut Petitioner's showing because Singh129 would still qualify as prior art for claim 15 and its dependent claims.

For these reasons, and on the current record, Petitioner has demonstrated a reasonable likelihood that it will prevail in showing that Singh129 qualifies as prior art to the challenged claims. Given that there are no other disputes pertaining to Grounds 2A–B that are presented in the Preliminary Response for us to address at this stage, and our determination that Petitioner's burden for institution has already been met for the other grounds, we will forego further discussion of Grounds 2A–B at this time, leaving such issues for further development at trial.

VII. CONCLUSION

Based on the current record, we determine Petitioner has shown a reasonable likelihood that it will prevail in establishing that at least one claim of the '030 patent is unpatentable. Accordingly, we institute review of all claims challenged on all of the grounds in the Petition. *See Consolidated Trial Practice Guide* (Nov. 2019), 64, available at <https://www.uspto.gov/sites/default/files/documents/tpgnov.pdf>.

VIII. NOTICES

At this stage of the proceeding, 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.

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. 62, 64, 67, 69, 82, 83 (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, 36, 40–42, 45, 48, 52), a party shall file as an exhibit a PDF copy of the cited website page(s).

ORDER

Accordingly, it is:

ORDERED that pursuant to 35 U.S.C. § 314, an *inter partes* review is hereby instituted as to claims 1, 2, 4–7, and 9–18 of the '030 patent based on the unpatentability challenges presented 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.

IPR2024-00770
Patent 8,904,030 B2

For PETITIONER:

W. Karl Renner
Kim Leung
Steven Katz
Rishi Gupta
Ryan O'connor
FISH & RICHARDSON P.C.
axf-ptab@fr.com
leung@fr.com
katz@fr.com
rgupta@fr.com
oconnor@fr.com

For PATENT OWNER:

Michael Fuller
sfuller@ghiplaw.com

Rene Vazquez
rvazquez@sinergialaw.com