UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SAMSUNG ELECTRONICS CO., LTD. and
SAMSUNG ELECTRONICS AMERICA, INC.,
Petitioner,

v.

SEVEN NETWORKS, LLC,
Patent Owner.

_____

Case IPR2018-01108
Patent 9,516,127 B2

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Before THU A. DANG, JONI Y. CHANG, and
JACQUELINE T. HARLOW, *Administrative Patent Judges*.

CHANG, *Administrative Patent Judge*.

DECISION
Institution of *Inter Partes* Review
35 U.S.C. § 314(a)

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I.   INTRODUCTION

Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively, "Petitioner" or "Samsung") filed a Petition requesting an *inter partes* review of claims 1–30, 32–38, 40–48, and 50 ("the challenged claims") of U.S. Patent No. 9,516,127 B2 (Ex. 1001, "the '127 patent"). Paper 2 ("Pet."). The SEVEN Networks, LLC and CF SVN LLC (collectively, "Patent Owner") filed a Preliminary Response. Paper 11 ("Prelim. Resp."). Pursuant to our prior authorization, Petitioner filed a Reply (Papers 15, 16, "Reply") to the Patent Owner Preliminary Response as to the issue of whether Petitioner had named all of the real parties in interest, and Patent Owner filed a Sur-Reply (Papers 19, 20, "Sur-Reply").[1] The parties also filed Motions to Seal (Papers 17, 18, 21) the nonpublic versions of their papers (Papers 16, 19) and certain exhibits and have agreed to the Revised Protective Order (Paper 17, Attachments A, B; Paper 18, Attachment A).

Under 35 U.S.C. § 314(a), an *inter partes* review may not be instituted unless the information presented in the petition "shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." For the reasons stated below, we determine that there is a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim. We hereby

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[1] Both parties filed public and nonpublic versions of their papers. Our citations correspond to the nonpublic version of each paper.

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institute *inter partes* review of all the challenged claims on all the grounds of unpatentability asserted in the Petition.

A. Related Matters

The parties indicate that the '127 patent is involved in *SEVEN Networks, LLC v. Samsung Electronics Co., Ltd.*, Case No. 2:17-cv-00441 (E.D. Tex.). Pet. 78; Paper 3, 2. The parties also list other related proceedings. Paper 3, 1–2.
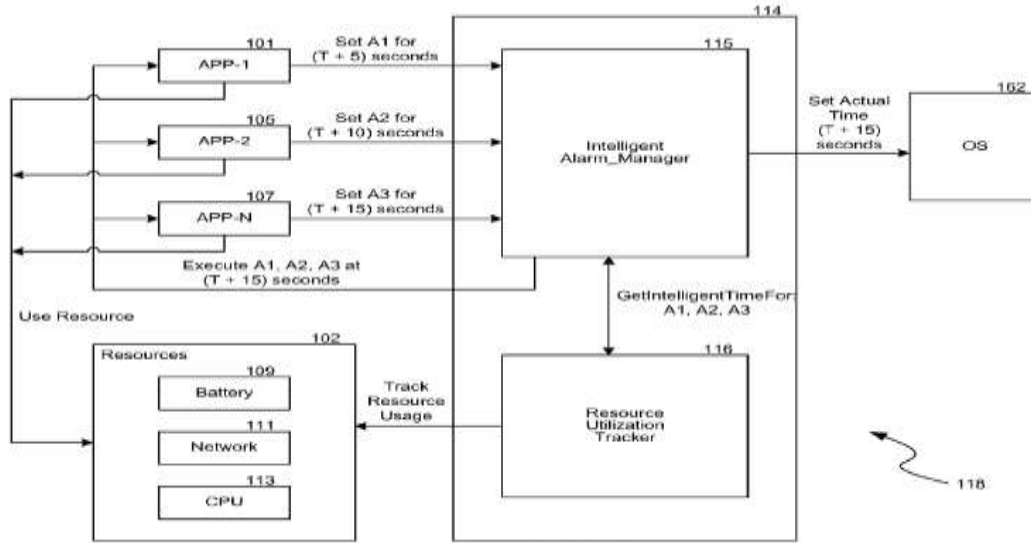
B. The '127 Patent

The '127 patent claims priority to U.S. Provisional Application No. 61/805,070 (the "'070 application"), which was filed on March 25, 2013. Ex. 1001, at [54], [60]. The '127 patent discloses a system and method "for tracking resources used by triggers such as alarms and timers that are used by mobile applications to schedule tasks and intelligently manipulating the timing of the triggers to optimize usage of resources." *Id*. at Abstract.

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Figure 1A-1 of the '127 patent is reproduced below.

FIG. 1A-1

Figure 1A-1 of the '127 patent illustrates an example resource utilization tracking and intelligent alarm management of triggers across multiple applications on a mobile device. *Id*. at 5:15−20. In particular, Figure 1A-1 shows intelligent alarm manipulator and resource tracker module 114 having intelligent alarm manger 115 and resource utilization tracker 116. *Id*. Applications 101, 105, and 107 are exemplary applications of a mobile device, which can set alarms for different times to perform different tasks. *Id*. at 5:24−26. Alarms A1, A2, and A3 are intercepted and/or tracked by intelligent alarm manger 115, and they use resources 102, including battery 109, network 111, and CPU 113. *Id*. at 5:29−33. Resource utilization tracker 116 tracks or monitors the usage of various resources by alarms A1, A2, and A3, or tasks triggered by the alarms. *Id*. at 5:33−36. For example, assuming that alarm A1 wakes up the mobile device from the

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sleep mode, when alarm A1 is triggered, the mobile device's battery/power resource and CPU resource can be utilized. *Id.* at 5:36−39.

C. Illustrative Claim

Of the challenged claims, claims 1, 10, 17, 24, 33 and 42 are independent. Claims 2−9 depend from claim 1; claims 11−16 depend from claim 10; claims 18−23 depend from claim 17; claims 25−30 and 32 depend from claim 24; claims 34−38, 40, and 41 depend from claim 33; and claims 43−48 and 50 depend from claim 42. Claim 1 is illustrative:

> 1. A method for managing resources on a mobile device, comprising:
>
> entering a power save mode based on a backlight status and sensed motion of a mobile device;
>
> delaying a timing of one or more triggers for multiple applications on the mobile device,
>
> wherein the timing is delayed such that the triggers execute within a window of time,
>
> wherein at least a subset of the triggers are associated with wakelocks; and
>
> exiting the power save mode when the backlight of the mobile device turns on or motion of the mobile device is sensed.

Ex. 1001, 23:60–24:5.

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D. Prior Art Relied Upon

Petitioner relies upon the references listed below (Pet. 4−6).

Reference		Exhibit
Chueh	US 2014/0195839 A1, published Jul. 10, 2014, filed Sep. 6, 2013, claiming priority to US Provisional Application No. 61/750,359, filed Jan. 9, 2013	1004
Backholm	US 2012/0023236 A1, published Jan. 26, 2012	1005
Srinivasan	US 2014/0038674 A1, published Feb. 6, 2014, filed May 24, 2013, claiming priority to US Provisional Application No. 61/678,481, filed Aug. 1, 2012	1006
Jiang	US 2012/0260118 A1, published Oct. 11, 2012	1007
Hackborn	US 8,280,456 B2, issued Oct. 2, 2012	1008
Kim	US 2012/0315960 A1, published Dec. 13, 2012	1009
Murphy	"The Busy Coder's Guide to Android Development," CommonsWare (Sept. 2012)	1011

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E. *Asserted Grounds of Unpatentability*

Petitioner asserts the following grounds of unpatentability (Pet. 3):[2]

Claims	Basis	References
1−23	§ 103	Chueh, Backholm, and Srinivasan
24−26, 28, 29, 32−34, 36, 37, 40−44, 46, 47, and 50	§ 103	Chueh, Jiang, and Kim
27, 35, and 45	§ 103	Chueh, Jiang, Kim, and Hackborn
30, 38, and 48	§ 103	Chueh, Jiang, Kim, and Backholm

II.   ANALYSIS

A. *Whether the Petition is Time-Barred under § 315(b)*

Petitioner asserts that its Petition was filed timely on May 21, 2018, because it was served on May 19, 2017, with a complaint alleging infringement of the '127 patent, and May 19, 2018 was a Saturday. Pet. 2.

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[2] The relevant post-grant review provisions of the America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284 (2011), took effect on March 16, 2013. 125 Stat. at 293, 311. The earliest possible effective filing date of the '127 patent is March 25, 2013. Therefore, our citations to Title 35 are to its post AIA version. Section 4(c) of the AIA re-designated 35 U.S.C. §§ 112(1), (2) as 35 U.S.C. §§ 112 (a), (b), respectively, effective September 16, 2012. 125 Stat. at 296–297.

Petitioner indicates that it is the sole real party in interest ("RPI"). *Id*. at 78.

Patent Owner argues that the Petition is time-barred under § 315(b).
Prelim. Resp. 1. According to Patent Owner, Google LLC ("Google") is
also an RPI to this proceeding, and a privy of Petitioner. *Id*. Patent Owner
avers that the Petition was filed more than a year after Google was served
with a complaint. *Id*. (citing Ex. 2003, 2).

1. Principles of Law

Section 315(b) of Title 35 of the United States Code provides:

(b) PATENT OWNER'S ACTION.—An inter partes review
may not be instituted if the petition requesting the proceeding is
filed more than 1 year after the date on which the petitioner, real
party in interest, or privy of the petitioner is served with a
complaint alleging infringement of the patent. The time
limitation set forth in the preceding sentence shall not apply to a
request for joinder under subsection (c).

"Whether a party who is not a named participant in a given
proceeding nonetheless constitutes a 'real party-in-interest' . . . to that
proceeding is a highly fact-dependent question" with no "bright line test,"
and is assessed "on a case-by-case basis." Office Patent Trial Practice Guide
("TPG"), 77 Fed. Reg. 48,756, 48,759 (Aug. 14, 2012) (citing *Taylor v.
Sturgell*, 553 U.S. 880, 893−95 (2008); 18A Charles Alan Wright, Arthur R.
Miller & Edward H. Cooper, Federal Practice & Procedure §§ 4449, 4451).

"To decide whether a party other than the petitioner is the real party in
interest, the Board seeks to determine whether some party other than the
petitioner is the 'party or parties *at whose behest the petition has been
filed*.'" *Wi-Fi One, LLC v. Broadcom Corp.*, 887 F.3d 1329, 1336 (Fed. Cir.

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2018) ("*Wi-Fi Remand*")(emphasis added). "A party that funds and directs and controls an IPR or post-grant review proceeding constitutes a 'real party-in-interest,' even if that party is not a 'privy' of the petitioner." *Id.* Also, several relevant factors for determining whether a party is an RPI include the party's relationship with the petitioner, the party's relationship to the petition, and the nature of the entity filing the petition. *Applications in Internet Time, LLC v. RPX Corp.*, 897 F.3d 1336, 1351 (Fed. Cir. 2018) ("*AIT*").

The concept of "privity" is more expansive and encompasses parties that do not necessarily need to be identified in the petition as RPIs. TPG, 77 Fed. Reg. at 48,759. The legislative history endorsed the expression of "privy" as follows:

> The word "privy" has acquired an expanded meaning. The courts, in the interest of justice and to prevent expensive litigation, are striving to give effect to judgments by extending "privies" beyond the classical description. *The emphasis is not on the concept of identity of parties, but on the practical situation. Privity is essentially a shorthand statement that collateral estoppel* is to be applied in a given case; there is no universally applicable definition of privity. *The concept refers to a relationship between the party to be estopped and the unsuccessful party in the prior litigation which is sufficiently close so as to justify application of the doctrine of collateral estoppel.*

154 CONG. REC. S9987 (daily ed. Sept. 27, 2008) (statement of Sen. Kyl) (emphasis added); 157 CONG. REC. S1376 (daily ed. Mar. 8, 2011) (incorporating prior 2008 statement). "[T]he standards for the privity inquiry must be grounded in due process." *WesternGeco LLC v. ION*

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Geophysical Corp., 889 F.3d 1308, 1318−19 (Fed. Cir. 2018). "[T]he privity inquiry in this context naturally focuses on *the relationship* between the named IPR petitioner and the party *in the prior lawsuit*. For example, it is important to determine whether the petitioner and the prior litigant's relationship—as it relates to the lawsuit—is sufficiently close that it can be fairly said that the petitioner had a full and fair opportunity to litigate the validity of the patent in that lawsuit." *Id.* (emphases added).

In *Taylor*, the United States Supreme Court identified a non-exhaustive list of six categories under which nonparty preclusion based on a privity relationship may be found: (1) an agreement between the parties to be bound; (2) pre-existing substantive legal relationships between the parties; (3) adequate representation by the named party; (4) the nonparty's control of the prior litigation; (5) where the nonparty acts as a proxy for the named party to re-litigate the same issues; and (6) where special statutory schemes foreclose successive litigation by the nonparty (e.g., bankruptcy or probate). *Taylor*, 553 U.S. at 893−95, 893 n.6. The Supreme Court noted that this list of the six "established grounds for nonparty preclusion" is "meant only to provide a framework . . . , not to establish a definitive taxonomy." *Id.* at 893 n.6. Each ground alone is sufficient to establish privity between a nonparty and a named party in the prior litigation. *WesternGeco*, 889 F.3d at 1319−20.

Petitioner "bears the ultimate burden of persuasion to show that its petitions are not time-barred under § 315(b) based on a complaint served on

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an alleged real party in interest more than a year earlier." *Worlds Inc. v. Bungie, Inc.*, 903 F.3d 1237, 1242 (Fed. Cir. 2018).

2. Whether Google is a Real Party in Interest

Patent Owner contends that Google is an RPI because (1) Google and Samsung have a preexisting, established relationship that includes indemnification obligations; (2) Google and Samsung are cooperating in the related district court case, including by submitting joint invalidity contentions that rely on some of same prior art used in the Petition; (3) Samsung will benefit from the Petition; and (4) Google and Samsung each filed several petitions for *inter partes* review of Patent Owner's patents within a few days of one another. Prelim. Resp. 1–9; Sur-Reply 1–6. Samsung contends that Google is not indemnifying Samsung and that Google is not involved in this proceeding. Reply. 1–10.

On this record, Samsung shows sufficiently that Google is not an RPI. First, the customer-supplier relationship between Samsung and Google does not indicate that Google is an RPI. ████████████████████

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████████ Ex. 1030 ¶ 22; Ex. 1047. Thus, the evidence shows that Samsung and Google have a standard customer-supplier relationship, which by itself does not make Google an RPI. *See WesternGeco*, 889 F.3d at 1321 ("ION and PGS had a contractual and fairly standard customer-manufacturer relationship regarding the accused product," which "does not necessarily suggest that the relationship is sufficiently close . . . that the parties were litigating . . . the IPRs as proxies for the other.").

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Second, the relationship between Google and the Petition does not indicate that Google is an RPI. Samsung independently prepared and filed the Petition without any involvement from Google. Ex. 1035 ¶¶ 3−5. Indeed, Google filed its own petitions. *See, e.g.*, IPR2018-01051, Paper 2; IPR2018-01052, Paper 2. A member of Google's Patent Litigation Legal team, Joseph Shear, testifies that Google and Samsung filed their petitions within a few days of one another because their respective deadlines under 35 U.S.C. § 315(b) were a few days apart. Ex. 1030 ¶ 21. Thus, even if Google's and Samsung's interests, as co-defendants in the district court litigation, generally are aligned in that they have been charged with infringing the same patents (as would normally be true for all co-defendants), the evidence shows that the parties acted independently, and Samsung did not file the Petition at the behest or on behalf of Google. *See Wi-Fi Remand*, 887 F.3d at 1340–41 ("Wi-Fi's evidence showed that Broadcom's interests as to the issue of infringement were generally aligned with those of its customers," but "there is no evidentiary support for Wi-Fi's theory that Broadcom was acting at the behest or on behalf of the D-Link defendants.").

Third, the nature of the relationship between Google and Samsung as parties charged with infringing the same patents does not indicate that Google is an RPI. Google and Samsung are independent companies that Patent Owner separately accused of patent infringement. Exs. 2022, 2029. Patent Owner's cases against Google and Samsung were consolidated for pretrial purposes (Ex. 2023), and, thus, as would normally be expected in

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such situations, Google and Samsung cooperated to file joint proposed claim constructions and joint invalidity contentions (Ex. 2020; Ex. 2024, 4). But, as discussed, the evidence establishes that Google is not funding or controlling Samsung's defense, and that Samsung prepared and filed the Petition independently, without any involvement from Google. Ex. 1035 ¶¶ 3−5; Ex. 1030 ¶¶ 20, 22; Ex. 1047. Thus, the evidence does not indicate anything about the nature of Google or Samsung's cooperation in litigation with Patent Owner that would make Google an RPI. *Cf. AIT*, 897 F.3d at 1351 ("The evidence of record reveals that RPX, unlike a traditional trade association, is a for-profit company whose clients pay for its portfolio of 'patent risk solutions.'").

Therefore, based on the totality of the circumstances at this time, we determine that Samsung has shown that Google is not an RPI.

3. <u>Whether Google is a Privy of Petitioner</u>

Patent Owner argues that Google is a privy of Petitioner. Prelim. Resp. 1−13. According to Patent Owner, Google had the opportunity to control Samsung's challenges to the '127 patent because ▮▮▮▮▮▮▮ ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮ Sur-Reply 1−6. Patent Owner further contends that Google is a privy of Petitioner under each of the six *Taylor* considerations. *Id*. at 6.

The evidence of record indicates that Google is not a privy of Petitioner. As explained in *AIT*, "a 'privity' is a party that has a direct relationship to the petitioner *with respect to the allegedly infringing product or service*." *AIT*, 897 F.3d at 1350 (emphasis added). Here, Patent Owner

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improperly relies upon prior indemnification agreements unrelated to the products alleged to infringe the '127 patent. *See, e.g.*, Prelim. Resp. 6−7, 11 (citing Ex. 2028 (a copy of a *2011* Mobile Application Distribution Agreement setting forth the conditions under which Google will incur indemnification obligations, but not identifying or accepting any particular indemnity tender)); *id.* at 1−13 (arguing that "the parties have a history of mutual indemnity obligations for such products dating back to 2011 and Google has accepted Samsung requests for indemnification in *prior patent infringement actions*" (emphasis added)). Similarly, the 2014 articles cited by Patent Owner are not related to the products alleged to infringe the '127 patent. Exs. 2041, 2042, 2050.

Patent Owner's argument that Google had the opportunity to control the related infringement action against Samsung is not supported by the evidence of record. Sur-Reply 1−6. ███████████████████

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██████████████████████████████ Ex. 1047, 3. ██████████████

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████████. Ex. 1047; Ex. 1030 ¶ 22.

We also are not convinced by Patent Owner's contention that Samsung has tendered control of its defense to Google. Sur-Reply 1−6.

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██████████████████████████ Exs. 1031−1033. ████████████

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████████████████ Ex. 1047, 3. Nothing in this record shows Patent Owner's infringement contentions are directed to the products covered by ██████████████ or any other indemnification agreement between Google and Samsung. Therefore, Patent Owner's contention that Google had an opportunity to control Samsung's defense in the related infringement action is not supported by the evidence of record.

Based on the evidence in this record, we also do not agree with Patent Owner's arguments that Google is a privy of Petitioner under each of the six *Taylor* grounds. Sur-Reply 1–6.

As to the first and second *Taylor* grounds, Patent Owner argues that Samsung and Google have "an agreement between the parties to be bound" and a "pre-existing substantive legal relationship." *Id*. at 6. In Patent Owner's view, they are "long-time business partners, ████████████ indemnitors/ indemnitees as to Android phone products and common-interest parties as to the patents themselves." *Id*.

As discussed above, however, the evidence of record indicates that the prior indemnification agreements ██████████████ pertain to other products, *not* those alleged to infringe the '127 patent in the lawsuit asserted against Samsung. Exs. 1047, 1051, 2028. ████████████████████

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████████████████████████████████ Reply 4–6.

Therefore, Samsung and Google merely have a standard customer-supplier

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relationship as to the accused product, which by itself "does not necessarily suggest that the relationship is sufficiently close that both should be bound by the trial outcome and related estoppels, nor does it suggest, without more, that the parties were litigating either the district court action or the IPRs as proxies for the other." *See WesternGeco*, 889 F.3d at 1321.

The evidence shows that Samsung acted independently as to the filing of this Petition. Ex. 1035 ¶¶ 3–4. Also, Samsung and Google are named in separate infringement actions, which have been consolidated for pre-trial proceedings (e.g., case schedule and claim construction). Reply 5–6.

Significantly, "a common desire among multiple parties to see a patent invalidated, without more, does not establish privity." *See WesternGeco*, 889 F.3d at 1321.

Accordingly, at this time, Petitioner has established sufficiently that "there exists no agreement between the parties subjugating Samsung to Google in either the litigation or the IPRs." Reply 4–6. And the evidence of record supports Petitioner's assertion that there is no substantive legal relationship between Google and Samsung with respect to the accused

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products. *Id.* at 6. In short, Petitioner has established on this record that Google is not a privy of Petitioner under the first and second *Taylor* grounds.

As to the third and fourth *Taylor* grounds, ██████████████

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Sur-Reply 6. However, as discussed above, the evidence of record indicates that the indemnification provisions ██████████████ do not apply to the accused products, and there is insufficient evidence to show that Google had an opportunity to control the co-pending lawsuit against Samsung. Ex. 1047, 3−4. Google is not indemnifying Samsung or otherwise funding or controlling Samsung's defense. *Id.*; Ex. 1030 ¶¶ 19−22. As Petitioner notes, Samsung and Google are named in separate and distinct cases, and each party has retained its own counsel and maintains control over its own case. Reply 5−7. Samsung alone has controlled and funded this Petition and proceeding. Ex. 1035 ¶¶ 3−5; Ex. 1047, 4. On this record, Petitioner has established at this time that Google is not a privy of Petitioner under the third and fourth *Taylor* grounds.

As to the fifth *Taylor* ground, Patent Owner argues that Google has acted as a proxy for Samsung by virtue of the parties' "joint preparation of invalidity contentions raising most of the combination references asserted in the IPRs and their discussions of the IPRs prior to filing." Sur-Reply 6. However, as discussed above, Samsung independently prepared and filed this Petition without any involvement from Google. Ex. 1035 ¶¶ 3−5.

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Indeed, Google filed its own petitions. *See, e.g.*, IPR2018-01051, Paper 2; IPR2018-01052, Paper 2. Mr. Shear testifies that Google and Samsung filed their petitions within a few days of one another because their respective deadlines under § 315(b) were a few days apart. Ex. 1030 ¶ 21. ███████████

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███████████████████████████████████████ Based on the evidence in this record, we agree with Petitioner that Google did not act as a proxy for Samsung. Reply 10. In sum, Petitioner has established at this time that Google is not a privy of Petitioner under the fifth *Taylor* ground.

As to the sixth *Taylor* ground, Patent Owner argues that § 315(b) is a special statutory scheme as identified in *Taylor* because it serves "to prevent successive challenges to a patent." Sur-Reply 6. Patent Owner's argument is misplaced. As noted above, § 315(b) provides Petitioner a one-year time period to file a petition. The legislative history indicates that § 315(b) was intended to set a "deadline for allowing an accused infringer to seek *inter partes* review after he has been sued for infringement." 157 CONG. REC. S5429 (daily ed. Sept. 8, 2011) (statement of Sen. Kyl). The deadline helps to ensure that *inter partes* review is not used as a tool for harassment by "repeated litigation and administrative attacks." H.R. REP. NO. 112-98 at 48 (2011), *as reprinted in* 2011 U.S.C.C.A.N. 67, 78. "[T]he rationale behind § 315(b)'s preclusion provision is to prevent successive challenges to a patent by those who previously have had the opportunity to make such challenges in prior litigation." *WesternGeco*, 889 F.3d at 1319.

Here, as discussed above, Samsung timely filed its Petition within one year after it was served with a complaint alleging infringement of the '127 patent in accordance with § 315(b). Nothing in this record shows that Samsung uses this Petition as a tool for harassment by repeated litigation and administrative attacks. In sum, Petitioner has established on this record that Google is not a privy of Petitioner under the sixth *Taylor* ground.

4. Conclusion as to the § 315(b) Issue

For the foregoing reasons, we determine that Petitioner has shown adequately that Google is neither an RPI nor a privy of Petitioner. We, therefore, conclude that Petitioner has demonstrated sufficiently at this time that its Petition is not time-barred under § 315(b).

B. Discretionary Denial Under 35 U.S.C. § 325(d)

In determining whether to institute an *inter partes* review, "the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office." 35 U.S.C. § 325(d). We have considered the factors set forth in *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, Case IPR2017-01586, slip op. at 17−18 (Paper 8) (PTAB Dec. 15, 2017) (informative), and determined the factors do not weigh in favor of exercising discretion under § 325(d).

Patent Owner argues that the Office already considered the question whether the challenged claims are supported by subject matter materially identical to that appearing in the '070 application. Prelim. Resp. 41−42. As

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support, Patent Owner avers that, during the prosecution of the '127 patent, Patent Owner amended the claims and emailed a claim chart to the Examiner, showing where the newly added limitations were supported in the Specification of the '127 patent. *Id.* (citing Ex. 2046).

However, Patent Owner proffers no creditable evidence that the subject matter appeared in the '070 application had been discussed substantively by the Examiner during the prosecution of the '127 patent. Moreover, the Federal Circuit has rejected the approach that "would create a presumption that a patent is entitled to the benefit of the filing date of its provisional precursor" as "unsound" and "because the PTO does not examine provisional applications as a matter of course; such a presumption is therefore not justified." *Dynamic Drinkware, LLC v. National Graphics, Inc.*, 800 F.3d 1375, 1380 (Fed. Cir. 2015). "[B]ecause the PTO does not examine priority claims unless necessary, the Board has no basis to presume that a . . . patent is necessarily entitled to the filing date of its provisional application." *Id.*; *see also PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1305 (Fed. Cir. 2008) ("When neither the PTO nor the Board has previously considered priority, there is simply no reason to presume that claims in a [continuation-in-part] application are entitled to the effective filing date of an earlier filed application. Since the PTO did not make a determination regarding priority, there is no finding for the district court to defer to."). For these reasons, we decline to exercise our discretion under § 325(d) to deny the Petition.

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C. Patent Owner's Procedural Arguments

Patent Owner argues that the Petition should be denied for "providing long string cites of paragraphs, figures, and other citations without any quotations, parentheticals or explanations of how those various citations support its arguments." Prelim. Resp. 15−16. According to Patent Owner, the Petition lacks clarity because it uses internal cross-references and citations of large volumes of evidence without specifically identifying what the Petition is relying upon. *Id*. at 16−20. Patent Owner also argues that the Petition uses figures excessively to circumvent the word limit. *Id*. at 21−22.

Upon consideration of Patent Owner's arguments and the Petition, we are not convinced that denial of institution is warranted. The Petition as a whole provides clear and detailed explanations as to how the prior art references teach or suggest each claim limitation. *See generally* Pet. For instance, in the allegedly egregious example cited by Patent Owner (Prelim. Resp. 15−16), Patent Owner narrowly focuses on one sentence and ignores the detailed explanations provided immediately in the next three sentences in the Petition. Pet. 57−58. Petitioner's prior art citations provide support for the explanations, showing where the reference discloses the subject matter relied upon. The mere fact that a reference teaches the claimed subject matter in multiple places, and that the Petition comprehensively directs our attention to all of the locations where the subject matter is being discussed or disclosed, does not warrant a denial of the Petition. Furthermore, there is no prohibition against referencing back and relying upon the detailed explanations of a similar limitation or an independent claim, especially here

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where the involved patent has a total of 50 claims with overlapping claimed subject matters.

In addition, the use of the figures in the Petition seems reasonable, as they provide further support for the detailed explanations. *See generally* Pet. The only figure that contains excessive text is Chueh's Figure 3, which depicts a flow chart for performing wake-up event management. *Id*. at 21. Petitioner provides this figure to show how Chueh teaches the preamble of claims 1, 10, and 17—e.g., "A method for managing resources on a mobile device." *Id*. at 19−21. Even if we were to consider the explanations alone without the texts on Chueh's Figure 3, Petitioner's analysis is clear as to how Chueh teaches the subject matter in the preamble of these claims, as discussed below in our obviousness analysis. *Id*.

Upon review of the Petition as a whole, we are not convinced that denial of institution is warranted.

D. Claim Construction

The instant Petition was filed May 21, 2018, prior to the effective date of the rule change that replaces the broadest reasonable interpretation ("BRI") standard. *See* Changes to the Claim Construction Stand for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340 (Oct. 11, 2018) (final rule) ("This rule is effective on November 13, 2018 and applies to all IPR, PGR and CBM petitions filed on or after the effective date."). We, therefore, apply the BRI standard in this proceeding. Under the BRI standard, claim terms in an

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unexpired patent are given their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b) (2017). Under the BRI standard, claim terms generally are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

Petitioner argues that all claim terms should be given their plain meaning. Pet. 12. At this juncture, Patent Owner does not proffer any claim construction. *See generally* Prelim. Resp. Nevertheless, Patent Owner argues that the Petition should be denied because Petitioner fails to comply with its claim construction obligations. *Id.* at 22−28.

We are not persuaded by Patent Owner's argument, however. Patent Owner does not identify a reason why the claim terms should not be given their plain meaning. Moreover, the Trial Practice Guide provides that "where appropriate, it may be sufficient for a party to provide a simple statement that the claim terms are be given their broadest reasonable interpretation, as understood by one of ordinary skill in the art and consistent with the disclosure." TPG, 77 Fed. Reg. at 48,764. Here, for purposes of this Decision, we find that the Petition provides reasonably clear explanations showing how the challenged claims, giving the claim terms their plain and ordinary meaning in light of the Specification, are unpatentable under the asserted grounds. *See generally* Pet. To the extent that Patent Owner takes issue with Petitioner's indefiniteness argument advanced in a district court action, Petitioner does not present an

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indefiniteness ground under § 112 in this proceeding. Rather, Petitioner asserts that the challenged claims are unpatentable under § 103 based on patents and printed publications in accordance with § 311(b). Pet. 3−4.

In any event, for purposes of this Decision, we need to construe only the claim term "triggers" to resolve the issues before us. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd.,* 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'") (citing *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

"triggers"

Claim 1 recites "delaying a timing of one or more triggers for multiple applications on the mobile device." Ex. 1001, 23:64−65. The Specification states that "[a]s used herein, triggers include alarms and timers used for performing scheduled task," and that "[t]riggers, alarms and timers have been used interchangeably herein." Ex. 1001, 5:7−9. In light of the claim language and the Specification, we construe "triggers" as "alarms and timers used by applications to scheduled tasks."

E. Effective Priority Date of the Challenged Claims

Chueh is relied upon by Petitioner in each of the asserted grounds. Chueh is a US patent application publication of an application that was filed on **September 6, 2013**, *prior to* the actual filing date of the application issued as the '127 patent (March 24, 2014), but *after* the filing date of the

'070 application (March 25, 2013) to which the '127 patent claims priority.
Ex. 1004, at [22]; Ex. 1001, at [22], [60]. There is no presumption that the
'127 patent is entitled to the priority date of the '070 application. *Dynamic
Drinkware*, 800 F.3d at 1380. "[A] patentee bears the burden of establishing
that its claimed invention is entitled to an earlier priority date than an
asserted prior art reference." *In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d
1364, 1376 (Fed. Cir. 2016). In sum, unless Patent Owner shows that the
challenged claims are entitled to priority date of the '070 application, the
effective filing date of the '127 patent for purposes of this Decision is its
actual filing date, and Chueh qualifies as prior art against the challenged
claims.

Principles of Law

Under 35 U.S.C. § 119(e), "for the non-provisional utility application
to be afforded the priority date of the provisional application . . . the written
description of the provisional must adequately support the claims of the non-
provisional application." *New Railhead Mfg., L.L.C. v. Vermeer Mfg. Co.*,
298 F.3d 1290, 1294 (Fed. Cir. 2002). The test for determining compliance
with the written description requirement under 35 U.S.C. § 112 is whether
the original disclosure of the earlier-filed application reasonably would have
conveyed to a person of ordinary skill in the art that the inventor had
possession of the claimed subject matter at the time of the earlier-filed
application. *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351
(Fed. Cir. 2010) (en banc); *In re Kaslow*, 707 F.2d 1366, 1375 (Fed. Cir.
1983). The original disclosure of the earlier-filed application must convey

with reasonable clarity to those skilled in the art that the inventor was in possession of the claimed subject matter, as of the filing date of the earlier-filed application. *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563–64 (Fed. Cir. 1991). Moreover, when determining whether the specification of an application provides adequate written description for the claimed subject matter, the exact terms appearing in the claim "need not be used *in haec verba*." *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997).

Analysis

Petitioner takes the position that the '070 application does not provide adequate written description support for each of the independent claims of the '127 patent—namely, claims 1, 10, 17, 24, 33, and 42. Pet. 7–12. To support its position, Petitioner avers that the claimed features concerning entering and exiting a power save mode, as recited in each of these claims, are not described adequately in the '070 application. *Id*.

Claim 1 recites "entering a power save mode based on a backlight status and sensed motion of a mobile device," and "exiting the power save mode when the backlight of the mobile device turns on or motion of the mobile device is sensed." Ex. 1001, 23:62–63, 24:3–5. Claims 10 and 17 recite similar limitations. *Id*. at 24:31–32, 39–41, 60–61, 25:1–3. Claim 24 recites "receiving a selection from a user whether to enter a power save mode, where the power save mode is based on a battery level of the mobile device," "upon selection to enter the power save mode, . . ." and "exiting the power save mode, wherein the power save mode is exited based on a battery

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level or in response to the user directing the mobile device to exit the power save mode." *Id*. at 25:28−39. Claims 33 and 42 recite similar limitations. *Id*. at 26:5−15, 50−60.

Citing to Dr. Corner's testimony (Ex. 1003 ¶¶ 17−23), Petitioner argues that the '070 application does not use the term "power save mode," but only describes exiting a "sleep mode" based on an alarm. Pet. 9 (citing Ex. 1010 ¶ 101). Petitioner contends that this description does not describe entering or exiting a sleep mode based on the factors recited in the challenged claims (e.g., a backlight status, sensed motion of a mobile device, and a battery level of the mobile device). *Id*. at 9−11 (citing Ex. 1010 ¶¶ 32, 36, 49, 63, 103). Petitioner also avers that the '070 application does not describe user selection to enter or exit a power save mode. *Id*. at 10 (citing Ex. 1010 ¶ 103). On this record, we agree with Petitioner.

Patent Owner opposes, arguing that the '070 application "describes a mode for saving power." Prelim. Resp. 30−31 (citing Ex. 1010 ¶¶ 101, 103). As to the aforementioned limitations recited in claims 1, 10, and 17, Patent Owner argues that the '070 application describes that the power save mode is entered or exited based on user inactivity and activity, including a backlight status and a sensed motion. *Id*. at 32−34 (citing Ex. 1010 ¶¶ 32, 36). With respect to the limitations recited in claims 24, 33, and 42, Patent Owner argues that the '070 application describes that the user may select, through a mode selector, whether to enter or exit a power save mode based on a battery level. *Id*. at 34−40 (citing Ex. 1010 ¶¶ 63, 100, 103).

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As Petitioner notes, the entirety of the '070 application does not use the term "power save mode," but describes a "sleep mode" only once: "For example, in the Android platform, some applications use alarms associated with wake lock (WakeLock) to bring the device out of sleep mode." Ex. 1010 ¶ 101. That statement merely confirms what was known in the art at the time of the invention regarding using alarms to bring the device out of a sleep mode in the Android platform. Such a statement does not convey that the named inventors had possession of the claimed subject matter—e.g., "entering a power save mode based on a backlight status and sensed motion of a mobile device," and "exiting the power save mode when the backlight of the mobile device turns on or motion of the mobile device is sensed," recited in claims 1, 10, and 17. *See Ariad*, 598 F.3d at 1351 (noting that "the specification must describe an invention understandable to that skilled artisan and show that the inventor actually invented the invention claimed").

We also are not persuaded by Patent Owner's argument, at this time, that the '070 application describes the claimed "power save mode" in that it "describes a system for 'the optimization of resource usage via intelligent manipulation of the alarms, timers, or other triggers' which can be used to save battery power," and "this 'optimization of resource usage' is turned on via a '*mode* selector.'" Prelim. Resp. 30−31 (citing Ex. 1010 ¶¶ 101, 103). The "mode selector," as described in the '070 application, is not for entering and existing the claimed "power save mode" based on user inactivity or activity, as Patent Owner contends. Ex. 1010 ¶ 103. But rather, it describes

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other claimed elements—e.g., "delaying a timing of one or more triggers for multiple applications on the mobile device," as recited in claims 1, 10, and 17; and "optimizing background traffic of the first application" and "adjusting a timing of activities of a second application" as recited in claims 24, 33, and 42. *Id.* ¶¶ 101–103. The '070 application makes clear that the "optimization of resource usage" and battery conservation is due to *delaying or manipulating alarms or other triggers. Id.* Notably, the '070 application explains that: (1) "the alarm/timer manipulator 220 can delay the alarm to conserve battery power" (*id.* ¶ 101); (2) "the resource usage reporting module 222 can track savings in resource utilization from the manipulating of alarms, timers or other triggers" (*id.* ¶ 102); and (3) "a mode selector . . . allows the user to turn on or off the optimization of resource usage via intelligent manipulation of the alarms, timers, or other triggers across multiple applications" (*id.* ¶ 103). Nothing in the paragraphs relied upon by Patent Owner describes entering or exiting a power save mode based on a backlight status and/or sensed motion, as required by the challenged claims.

As the Federal Circuit has explained, the specification of the earlier-filed application "must contain an equivalent description of the claimed subject matter." *See Lockwood*, 107 F.3d at 1572. "It is not sufficient for purposes of the written description requirement of § 112 that the disclosure, when combined with knowledge in the art, would lead one to speculate as to modifications that the inventor might have envisioned, but failed to disclose." *Id.*; *Los Angeles Biomedical Research Institute v. Eli Lilly and Co.*, 849 F.3d 1049, 1058 (Fed. Cir. 2017).

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For these reasons, we do not find that the '070 application provides adequate written description support for the claimed "power save mode."

Furthermore, we are not persuaded by Patent Owner's argument that paragraphs 32 and 36 of the '070 application describe entering and exiting a power save mode based on user inactivity or activity, including a backlight status and sensed motion. Prelim. Resp. 32–34 (citing Ex. 1010 ¶¶ 32, 36). Paragraph 32 of the '070 application describes input mechanism on client devices, and paragraph 36 provides: "in context of battery conservation, the device 150 can *observe user activity* (for example, by observing user keystrokes, backlight status, or other signals via one or more input mechanisms, etc.) and *alters device 150 behaviors*." Ex. 1010 ¶¶ 32, 36 (emphases added). A generic disclosure of altering device "behaviors" is not equivalent to a description of entering and existing a power save mode based on user activity, much less a backlight status and sensed motion, as Patent Owner implies. *See Lockwood*, 107 F.3d at 1572; *Los Angeles Biomedial Research Institute*, 849 F.3d at 1058.

Therefore, we do not find that the '070 application provides adequate written description support for entering and exiting a power save mode based on a backlight status and/or sensed motion of a mobile device, as required by claims 1, 10, and 17.

With respect to claims 24, 33, and 42, we are not convinced by Patent Owner's argument that the '070 application describes that "the user may select whether to enter or exit a power save mode through mode selector." Prelim. Resp. 37 (citing Ex. 1010 ¶ 103). As discussed above, the "mode

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selector" is not for entering or existing the claimed "power save mode" based on user activities, but for allowing "the user to turn on or off the . . . manipulation of the alarms, timers, or other triggers," providing support for other claim features (e.g., "optimizing background traffic of the first application" and "adjusting a timing of activities of a second application"). Ex. 1010 ¶ 103.

Patent Owner's argument that the '070 application describes that "the power save mode is based on . . . a battery level" is also unavailing. Prelim. Resp. 39 (citing Ex. 1010 ¶ 63). Paragraph 63 of the '070 application provides: "The device state monitor 121 can be responsible for identifying several states and metrics in the device, such as . . . battery level, etc. such that the remaining components in the client side proxy 175 can operate and make decisions according to device state, acting in an optimal way in each state." Ex. 1010 ¶ 63. A generic disclosure of "acting in an optimal way" is not equivalent to a description of entering and existing a power save mode based on a battery level, as required by the claims. *See Lockwood*, 107 F.3d at 1572; *Los Angeles Biomedical Research Institute*, 849 F.3d at 1058.

Therefore, we do not find that the '070 application provides adequate written description support for entering and exiting a power save mode based on a battery level, as required by claims 24, 33, and 42.

In addition, Patent Owner argues that Petitioner "relies on an *identical* paragraph in Backholm, paragraph [0068], several times to support its argument that Backholm discloses these very same limitations," and that "if Backholm paragraph [0068] supports disclosure of entering and exiting the

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'power save mode,' so too must the Provisional's identical paragraph [0036]." Prelim. Resp. 31−33. Patent Owner also avers that Petitioner's argument in this proceeding regarding written description is inconsistent with its argument in Case IPR2018-01106, because paragraph 206 of Backholm, relied upon by Petitioner, contains substantially similar language to paragraph 103 in the '070 application. *Id*. 34−35 (citing Ex. 2044, 57).

Patent Owner's arguments are misplaced, conflating the written description requirement with the obviousness inquiry. As the Federal Circuit has explained that "[a] description which renders obvious the invention for which an earlier filing date is sought is not sufficient." *Lockwood*, 107 F.3d at 1572; *Bradford Co. v. Conteyor North Am., Inc.*, 603 F.3d 1262, 1269 (Fed. Cir. 2010). Nor does the claimed subject matter could have been "envisioned" from the earlier disclosure establish adequate written description support. *Goeddel v. Sugano*, 617 F.3d 1350, 1356 (Fed. Cir. 2010).

More significantly, Petitioner relies upon not only paragraph 68 of Backholm as Patent Owner alleges, but also other portions of Backholm to account for the "power save mode" limitations to render claims 1, 10, and 17 obvious. *See, e.g.*, Pet. 22−23 (citing Ex. 1005 ¶¶ 68, 200, 201, Fig. 5). For instance, paragraph 201 of Backholm, cited by Petitioner, discloses a mobile device entering a power save mode: "after the user has been detected to be inactive or idle over a period of time . . . , the local proxy can *adjust the device to go into the power saving mode*." Ex. 1005 ¶ 201 (emphasis added). Figure 5 of Backholm, also cited by Petitioner, shows a "process for

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implementing a hybrid IP and SMS power saving mode on a mobile device 550 using a distributed proxy and cache system." *Id.* ¶ 199, Fig. 5.

Furthermore, Petitioner relies upon not only paragraph 206 of Backholm as Patent Owner alleges (Prelim. Resp. 35−36), but also paragraph 81 of Backholm and Aleksic (Ex. 1007 in Case IPR2018-01106) to account for the "power save mode" limitations, to render claims 24, 33, and 42 obvious. *See, e.g.*, Ex. 2044, 57−64 (citing Ex. 1005 ¶¶ 81, 206; Ex. 1007 in Case IPR2018-01106). As Petitioner notes, Aleksic teaches a portable device that operates in a low battery power mode and reduces power consumption when the battery level drops below a threshold, and Aleksic provides a user interface for the user to set application priority levels for reserving battery power. *See* Ex. 2044, 58 (citing Ex. 1007 ¶¶ 3, 48−54, Figs. 13, 14 in Case IPR2018-01106).

We also do not agree with Patent Owner's assertion that paragraph 103 of the '070 application contains similar description as that in paragraph 206 of Backholm. Paragraph 206 of Backholm specifically discloses that "the *power save mode can be turned on and off* . . . by the user via a user interface on device." Ex. 1005 ¶ 206 (emphases added). In contrast, as noted above, paragraph 103 of the '070 application does not provide adequate written description support for the claimed "power save mode" because the "mode selector" in '070 application is for allowing the user to turn on or off the manipulation of alarms or other triggers across multiple applications, which is directed to other claim features (e.g., "optimizing

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background traffic of the first application" and "adjusting a timing of activities of a second application" in claims 24, 33, and 42). Ex. 1010 ¶ 103.

In short, based on the evidence in this record, we do not find the '070 application provides adequate description for the claimed subject matter, entering and existing a power save mode based on a backlight status and/or sensed motion, as required by claims 1, 10, and 17 and their dependent claims, or based on a battery level, as required by claims 24, 33, and 42, and their dependent claims.

F. Principles of Law

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *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) objective evidence of nonobviousness.[3] *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

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[3] Neither party presents arguments regarding objective evidence of nonobviousness in the instant proceeding at this time.

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G. Level of Ordinary Skill in the Art

In determining the level of ordinary skill in the art, various factors may be considered, including the "type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field." *In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citation omitted). In that regard, Petitioner's declarant, Mark Corner, Ph.D., testifies that a person with ordinary skill in the art at the time of the invention "would have had a Bachelor's degree in computer science, electrical engineering, or a similar discipline, and one or two years of work experience in operating systems or networked computing device communication and power consumption of networked computing devices, or a related area." Ex. 1003 ¶ 42. Dr. Corner also testifies that "[m]ore education can substitute for practical experience and vice versa." *Id.*

At this juncture, Patent Owner does not dispute Dr. Corner's assessment of the level of ordinary skill in the art. *See generally* Prelim. Resp. Based on the current record, we apply Dr. Corner's assessment for purposes of this Decision. We also note that the prior art of record currently in the instant proceeding reflects the appropriate level of ordinary skill in the art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1354–55 (Fed. Cir. 2001) ("the prior art itself reflects an appropriate level" of ordinary skill in the art).

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H. Obviousness over Chueh, Backholm, and Srinivasan

Petitioner asserts that claims 1–23 are unpatentable under § 103 as obvious over Chueh, Backholm, and Srinivasan. Pet. 13–50. To support its contentions, Petitioner cites to a Declaration of Dr. Corner. Ex. 1003. Patent Owner counters that the prior art combination does not render obvious "exiting the power save mode," as required by the claims, and Petitioner fails to articulate a motivation to combine Chueh and Backholm. Prelim. Resp. 44–50.

For the reasons provided below, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing on its assertion that claims 1–23 are obvious over Chueh, Backholm, and Srinivasan. We begin our discussion with a brief summary of the references, and then we address each of the relevant contentions advanced by the parties in turn.

Chueh

Chueh discloses a method and apparatus for performing wake-up event management. Ex. 1004, Abstract. Figure 4 of Chueh is reproduced below.
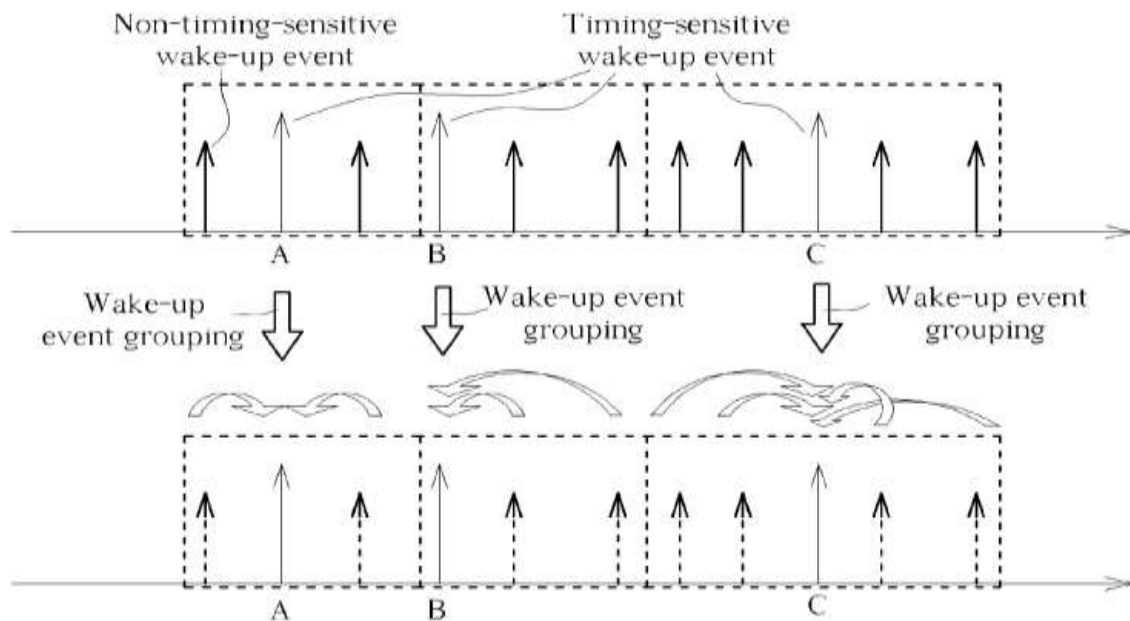
Figure 4 above illustrates a wake-up event control scheme. *Id*. ¶ 16. In this scheme, the wake-up times of non-timing sensitive wake-up events align with a wake-up time of timing-sensitive wake-up events A, B, and C. *Id*. ¶¶ 35−37. According to Chueh, optimizing timing control of wake-up events can minimize the number of times the device needs to be woken and save power consumption of the device. *Id*. ¶ 11.

Backholm

Backholm discloses a distributed proxy and cache system residing on a mobile device that manages traffic in a wireless network for resource conservation. Ex. 1005 ¶ 7. Figure 2A of Backholm is reproduced below.

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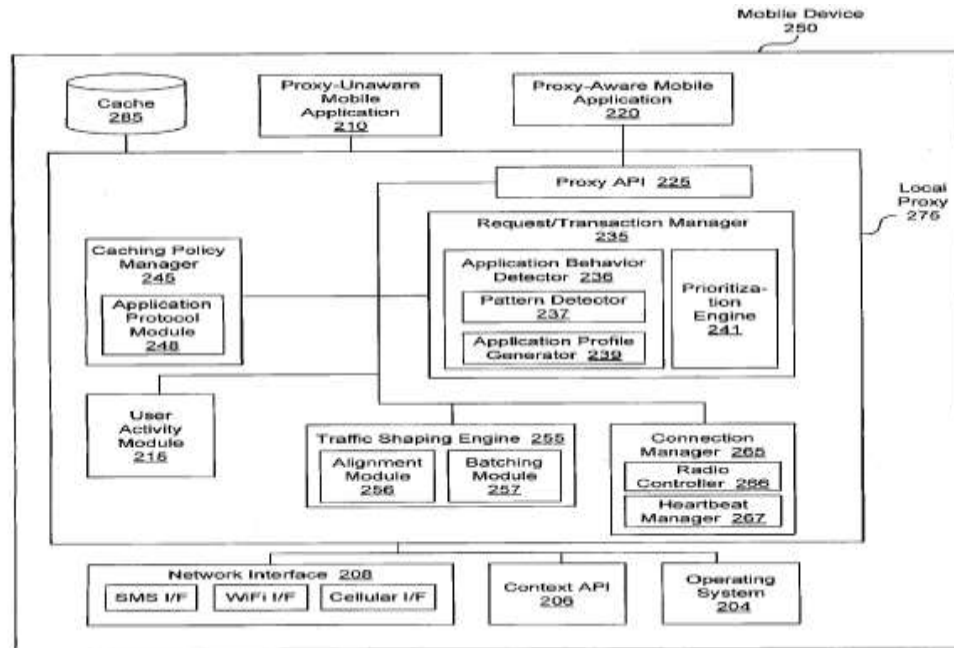
Figure 2A above illustrates an example of a distributed proxy and cache system residing on mobile device 250 that manages traffic in a wireless network for resource conservation. *Id.* ¶¶ 7, 88. Context API 206 can detect signals indicative of user or device activity, sensing motion, gesture, device location, changes in device location, device backlight, keystrokes, clicks, activated touch screen, or mouse click. *Id.* ¶ 98. Local proxy 275 includes user activity module 215 to "detect and track user activity," and traffic shaping engine 255, which includes batching module 257 for batch transfer of data. *Id.* ¶¶ 101, 119−100. After the user has been detected to be inactive or idle over a period of time, local proxy 275 can adjust the device to go into the power saving mode. *Id.* ¶ 201, Fig. 5.

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Srinivasan

Srinivasan discloses an activity recognition system of a mobile device. Ex. 1006, Abstract, Fig. 1. Figure 2 of Srinivasan is reproduced below.
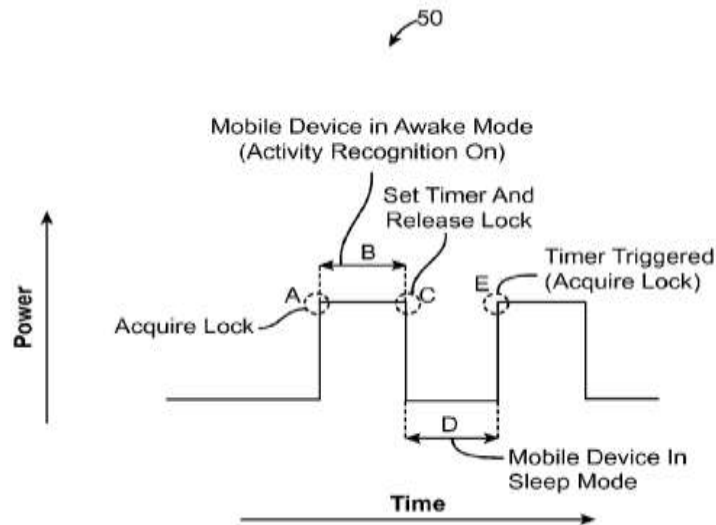

Figure 2 above illustrates power consumption over time for a mobile device that cycles between the sleep mode and the awake mode to conserve power. *Id.* ¶ 30. Points A and E of graph 50 represent the mobile device transitioning from the sleep mode to the awake mode. *Id.* ¶ 31. B represents the duration of awake time for the awake mode. *Id.* Point C represents the mobile device transitioning from the awake mode to the sleep mode. *Id.* D represents the duration of sleep time for the sleep mode. *Id.* In addition, at points A and E, the timer unit acquires a wakelock, which ensures that the mobile device stays awake and the application is not interrupted while performing an operation. *Id.* ¶ 32. Once the operation is completed, the time unit releases the wakelock and switches the mobile device to the sleep mode. *Id.*

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<u>Independent claims 1, 10, and 17</u>

1. A mobile device having a memory and a processor

Claim 1 recites a "method for managing resources on a mobile device." Ex. 1001, 23:60. Claim 10 requires a mobile device that includes a memory and "a processor in communication with the memory and configured to execute instructions stored in the memory." *Id.* at 24:26−30. Claim 17 is directed to a non-transitory computer-readable storage medium, and also requires a processor configured to execute instructions stored in the memory. *Id.* at 24:57−59.

Petitioner asserts that Chueh, in combination with Backholm and Srinivasan, discloses these limitations. Pet. 19−21. Petitioner explains that Chueh discloses a "mobile device on which it performs the method for wake-up event management," and the mobile device includes a processing circuit that retrieves and executes program code stored in a storage unit. *Id.* (citing Ex. 1004 ¶¶ 19−21, Figs. 1, 2).

Based on the evidence in this record, we determine that Petitioner has established sufficiently for purposes of this Decision that Chueh, in combination with Backholm and Srinivasan, teaches a "method for managing resources on a mobile device," as recited in claim 1, and a mobile device that includes a memory and "a processor in communication with the memory and configured to execute instructions stored in the memory," as required by claims 10, and 17. At this juncture, Patent Owner does not present any argument directed to these limitations for this ground.

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2. Entering and exiting a power save mode

Claim 1 recites "entering a power save mode based on a backlight status and sensed motion of a mobile device," (the "entering a power save mode" limitation) and "exiting the power save mode when the backlight of the mobile device turns on or motion of the mobile device is sensed" (the "exit the power save mode" limitation). Ex. 1001, 23:62−63, 24:3−5. Claims 10 and 17 recite similar limitations. *Id.* at 24:31−32, 39−41, 60−61, 25:1−3.

Petitioner's contentions

Petitioner explains in detail how Chueh, in combination with Backholm and Srinivasan, discloses these limitations. Pet. 22−24, 34−36. As to the "entering a power save mode" limitation, Petitioner acknowledges that, although Chueh discloses a mobile device enters a power save mode, Chueh does not teach explicitly that the mobile device enters the power save mode based on a backlight status and a sensed motion. *Id.* 22−24 (citing Ex. 1004 ¶¶ 5, 20, 26). Nevertheless, Petitioner asserts that Backholm confirms that backlight status and sensed motion were well-known factors in causing a mobile device to enter a power save mode. *Id.* (citing Ex. 1003 ¶ 52; Ex. 1005 ¶¶ 33, 41, 98, 200, 201). Dr. Corner testifies that a person of ordinary skill in the art would have been motivated to include in Chueh's mobile device, Backholm's conventional functionality for the mobile device to enter a power save mode after detecting the user has been inactive based on signals from the device backlight and the motion detector in order to

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achieve the benefit of reducing network resource usage and battery consumption. Ex. 1003 ¶¶ 57–59. According to Dr. Corner such an artisan would have recognized power saving benefits of Backholm's automatic entry of power save mode based on backlight status and sensed motion. *Id.*

With respect to the "exiting the power save mode" limitation, Petitioner explains Chueh discloses that the mobile device can exit the power save mode in response to a wake-up event, including "a display on event that the user turns on the touch-sensitive display panel 240 from Suspend state." Pet. 34–36 (citing Ex. 1004 ¶¶ 28, 34).

Upon review of the evidence in the present record, we are persuaded, for purposes of this Decision, that Petitioner has articulated a sufficient reason to combine the prior art teachings, as it supported by Dr. Corner's testimony, and that Petitioner has shown adequately that Chueh, in combination with Backholm and Srinivasan, renders obvious "entering a power save mode based on a backlight status and sensed motion of a mobile device," and "exiting the power save mode when the backlight of the mobile device turns on or motion of the mobile device is sensed," as required by claims 1, 10, and 17.

Patent Owner's contentions

Patent Owner asserts that Petitioner fails to articulate a motivation to combine Chueh with Backholm to render obvious the "entering a power save mode" limitation. Prelim. Resp. 44–46. According to Patent Owner, Backholm enters a power save mode after 20 minutes of inactivity, whereas

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Chueh exits power save mode every five minutes. *Id.* (citing Ex. 1005
¶ 201; Ex. 1004 ¶ 42). Patent Owner argues that Petitioner fails to explain
how the proposed combination would work if Chueh's wake-up events cause
the device to exit the power save mode between 4 and 20 times *within* the
time period that Backholm is waiting to enter the power save mode. *Id.*

However, Chueh's time period for the wake-up event does not start
running until *after* the mobile device is in the power save mode, *not within*
the waiting period for entering into the power save mode when the device is
still awake, as Patent Owner suggests. Ex. 1004 ¶¶ 5, 11, 42. Patent Owner
incorrectly assumes that both Chueh's time period for waking up the device
and Backholm's waiting time for entering into the power save mode are
running *simultaneously*. Therefore, Patent Owner's argument is unavailing.

Patent Owner also argues that Chueh does not teach "exiting the
power save mode when the backlight of the mobile device turns on or
motion of the mobile device is sensed." Prelim. Resp. 47–48. Patent Owner
avers Petitioner fails to show that turning on the touch-sensitive display from
suspend state, in Chueh, "was the type of wake-up event that exited power
save mode," in that only some of the wake-up events cause the device to
wake-up, but others are delayed or accelerated to other times. *Id.*

However, Patent Owner erroneously conflates timing-sensitive
wake-up events with non-timing-sensitive wake-up events. As Petitioner
notes (Pet. 27–28, 34), Chueh makes clear that *timing-sensitive* wake-up
events, including "a display on event that the user turns on the

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touch-sensitive display panel 240 from suspend state," are triggering events that are not adjusted. Ex. 1004 ¶¶ 28, 35−37, Fig. 4.

For the foregoing reasons, Patent Owner's arguments do not undermine Petitioner's obviousness showing. For purposes of this decision, we find Petitioner has articulated a sufficient reason to combine the prior art teachings and has shown that Chueh, in combination with Backholm and Srinivasan, renders obvious "entering a power save mode based on a backlight status and sensed motion of a mobile device," and "exiting the power save mode when the backlight of the mobile device turns on or motion of the mobile device is sensed," as required by claims 1, 10, and 17.

3. Delaying a timing of one or more triggers for multiple applications

Claim 1 recites "delaying a timing of one or more triggers for multiple applications on the mobile device," and "wherein the timing is delayed such that the triggers execute within a window of time." Ex. 1001, 23:64−67. Claims 10 and 17 recite similar limitations. *Id*. at 24:33−36, 62−65.

Petitioner explains in detail how Chueh, in combination with Backholm and Srinivasan, teaches these limitations. Pet. 24−29. As support, Petitioner notes that Chueh discloses adjusting (e.g., delaying) the wake up time of the grouping of events for multiple applications so that the grouping events are triggered at the same time as a triggering event. *Id*. (citing Ex. 1004 ¶¶ 36, 40, Figs. 3, 4, 6). Figure 4 of Chueh is reproduced below with annotations added by Petitioner.
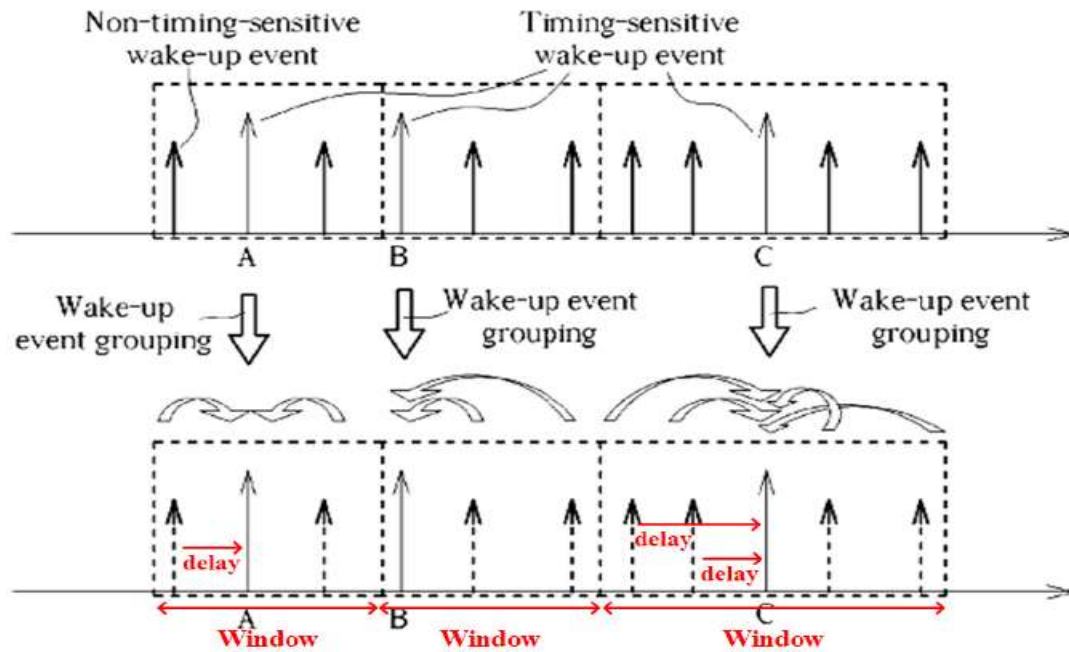
As shown in annotated Figure 4 above, wake-up times of non-timing sensitive wake-up events (alarms or triggers) are delayed or accelerated to a wake-up time of timing-sensitive wake-up events A, B, and C, executing within a window of time. *Id*. (citing Ex. 1004 ¶¶ 35−37, Figs. 3−5).

Upon consideration of the evidence in this record, we find Petitioner has shown sufficiently for purposes of this Decision that Chueh, in combination with Backholm and Srinivasan, teaches "delaying a timing of one or more triggers for multiple applications on the mobile device," and "wherein the timing is delayed such that the triggers execute within a window of time," as required by claims 1, 10, and 17. At this time, Patent Owner does not present any argument directed to these limitations for this ground.

4. A subset of the triggers are associated with wakelocks

Claim 1 recites "wherein at least a subset of the triggers are associated with wakelocks." Ex. 1001, 24:1−2. Claims 10 and 17 recite similar limitations. *Id.* at 24:37−38, 66−67.

Petitioner explains in detail how Chueh, in combination with Backholm and Srinivasan, teaches this limitation. Pet. 30−34. Petitioner acknowledges that although Chueh discloses wake-up events that wake up the mobile device, Chueh does not disclose explicitly triggers associated with *wakelocks*. *Id.* Nevertheless, Petitioner explains, Srinivasan confirms that triggers associated with wakelocks were known in the art at the time of the invention. *Id.* (citing Ex. 1006 ¶¶ 19, 31, 32, Fig. 2). Figure 2 of Srinivasan is reproduced below with annotations added by Petitioner.
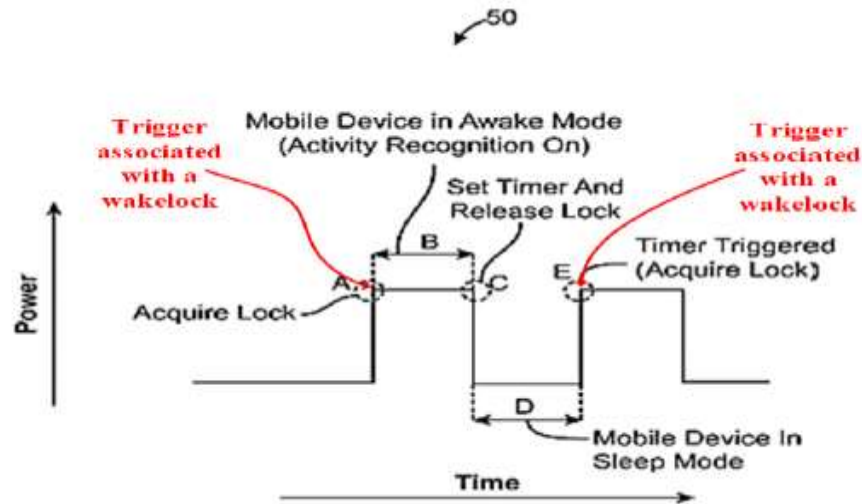
As shown in annotated Figure 2 above, the mobile device cycling between awake mode B and sleep mode D to conserve power. Ex. 1006 ¶ 30. As Petitioner explains, when the timer expires at times A and E, the

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application wakes the mobile device from sleep mode and acquires a wakelock to ensure that the device stays awake and the application is not interrupted while performing its task. Pet. 30–31 (citing Ex. 1006 ¶¶ 31, 32, Fig. 2). Dr. Corner testifies that a person of ordinary skill in the art would have modified Chueh's mobile device to use wakelocks, as described by Srinivasan, with at least a subset of the triggers to ensure the operations associated with the wake-up events are able to complete without the mobile device being put to sleep due to perceived inactivity. Ex. 1003 ¶¶ 84–87. On this record, we credit Dr. Corner's testimony as Dr. Corner has provided reasoned explanations and prior art citations that support his testimony.

For purposes of this Decision, we determine that Petitioner has shown sufficiently that Chueh, in combination with Backholm and Srinivasan teaches "at least a subset of the triggers are associated with wakelocks," as recited in claims 1, 10, and 17, and Petitioner has articulated an adequate reason to combine Chueh with Srinivasan, which is supported by Dr. Corner's testimony. At this juncture, Patent Owner does not present any argument directed to this limitation.

5. Conclusion on obviousness regarding independent claims 1, 10, and 17

In light of the foregoing, we determine that Petitioner has established a reasonable likelihood of prevailing on its assertions that claims 1, 10, and 17 are unpatentable under § 103 as obvious over Chueh, Backholm, and Srinivasan.

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Dependent claims 2−9, 11−16, and 18−23

Petitioner has accounted for the limitations further recited in each of dependent claims 2−9, 11−16, and 18−23. Pet. 36−50. We have considered Petitioner's explanations and supporting evidence, and find that Chueh, in combination with Backholm and Srinivasan, teaches those limitations. Patent Owner does not address these dependent claims with separate, specific arguments, but rather relies upon its arguments in connection with independent claims 1, 10, and 17. *See generally* Prelim. Resp. We already addressed those arguments above in our analysis for claims 1, 10, and 17, and we find those arguments unavailing here for the reasons stated above.

Based on the evidence in this present record, we determine that Petitioner has established a reasonable likelihood of prevailing on its assertion that claims 1−23 would have been obvious over Chueh, in combination with Backholm and Srinivasan.

III. CONCLUSION

For the foregoing reasons, we determine that the Petition and evidence in this record establish that there is a reasonable likelihood that Petitioner would prevail in challenging claims 1−23 of the '127 patent based on the ground discussed above. Because Petitioner has satisfied the threshold for institution as to at least one claim, we institute *inter partes* review on all challenged claims and all grounds raised in the Petition.[4] *See SAS Institute*

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[4] We have considered Patent Owner's remaining arguments, but we are not convinced that denial of institution is warranted.

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Inc. v. Iancu, 138 S. Ct. 1348, 1359–60 (2018) (holding that a decision to institute under § 314 may not institute on fewer than all claims challenged in the petition); *see also* the Guidance on the Impact of SAS on AIA Trial Proceedings posted on April 26, 2018 (at https://www.uspto.gov/patents-application-process/patent-trial-and-appealboard/trials/guidance-impact-sas-aia-trial) (noting that "if the PTAB institutes a trial, the PTAB will institute on all challenges raised in the petition)."

At this juncture, we have not made a final determination with respect to the patentability of the challenged claims, nor with respect to claim construction.

IV. ORDER

For the foregoing reasons, it is

ORDERED that pursuant to 35 U.S.C. § 314(a), an *inter partes* review is hereby instituted for all challenges raised in the Petition (Pet. 3):

Claims	Basis	References
1–23	§ 103	Chueh, Backholm, and Srinivasan
24–26, 28, 29, 32–34, 36, 37, 40–44, 46, 47, and 50	§ 103	Chueh, Jiang, and Kim
27, 35, and 45	§ 103	Chueh, Jiang, Kim, and Hackborn
30, 38, and 48	§ 103	Chueh, Jiang, Kim, and Backholm

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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; the trial will commence on the entry date of this Decision;

FURTHER ORDERED that this Decision is filed under seal, designated as "For Board and Parties Only" as it discusses and cites to the documents under seal; and

FURTHER ORDERED that, within 5 business days from the entry of this Decision, Patent Owner and Petitioner jointly file a proposed redacted version of this Decision.

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