UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TIKTOK INC., BYEDANCE INC., BYTEDANCE, LTD.,
BYTEDANCE PTE, LTD. and TIKTOK PTE, LTD
Petitioners,

v.

CELLSPIN SOFT, INC.,
Patent Owner.

IPR2024-00768

U.S. Patent No. 11,234,121

PATENT OWNER'S PRELIMINARY RESPONSE
PURSUANT TO 37 C.F.R. § 42.107

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PATENT OWNER'S EXHIBIT LIST

Exhibit	Description
2001	Order dated June 11, 2024 [Dkt. No. 47]
2002	Minute Entry dated June 25, 2024 [Dkt. No. 51]
2003	Docket Control Order [Dkt. No. 35]
2004	TikTok Invalidity Contentions dated June 6, 2024
2005	TikTok Answer and Counterclaims [Dkt. No. 11]
2006	Cohen Declaration (as filed in IPR2021-00476 at Exh. 2004)
2007	Harrison Declaration (as filed in IPR2021-00476 at Exh. 2005)
2008	TikTok Complaint in USCA Case No. 24-1113
2009	Not Used
2010	Not Used
2011	Not Used
2012	Not Used
2013	Excerpts from Prosecution Histories of the '121 and '381 Patents
2014	District Court Claim Construction Order
2015	Bluetooth BIP Specification
2016	Cellspin Article
2017	Silicon India Article

2018	Bluesnarfing Article
2019	Bluetooth Hacker Article
2020	’202 Application

Patent Owner CellspinSoft, Inc. ("Cellspin") respectfully opposes Petitioner TikTok Inc., *et al.*'s ("TikTok" or "Petitioner") Petition for *Inter Partes* Review of U.S. Patent No. 11,234,121 (Exh. 1005, "the '121 Patent").

As a threshold matter, this Board should exercise its discretion and decline to institute in view of the well-established *Fintiv* framework. As set forth herein, all *Fintiv* factors weigh *against* institution, and the existing District Court schedule is well ahead of the target date for a Final Written Decision (should institution be granted). Moreover, a number is unique circumstances exist which merit strong discretionary consideration by this Board. Broadly, and as explained more fully below, the ongoing geopolitical situation involving Petitioner TikTok and the Chinese and American governments renders institution here contrary to the wider interests of the United States.

Even beyond these extraneous factors, the Board should alternatively deny institution in view of the fact that Petitioner has not established a reasonable likelihood of proving the challenged claims unpatentable by a preponderance of the evidence. As established herein, Petitioner's arguments with respect to priority are unavailing, and the art as cited fails to disclose any "event notification" as recited in

the Challenged Claims. Further, the art as cited fails to disclose either the "listening" or "processing" aspects of the Challenged Claims, or the use of HTTP. Additional failures on the part of the Petition are discussed below.

I. THE BOARD SHOULD DENY INSTITUTION IN VIEW OF *FINTIV*

The Petition seeks to review a patent asserted in the pending district court litigation between the same parties: Plaintiff CellspinSoft, Inc., and Defendants Bytedance Ltd., Bytedance Pte. Ltd., and TikTok Pte. Ltd. [Case No. 2:23-cv-496-JRG-RSP (E.D. Tex., filed Oct. 23, 2023)]. Critically, the ongoing district court litigation between these parties is set for trial on August 4, 2025, which is two months before a Final Written Decision would be due (if instituted at all) here. This fact alone is dispositive. Under *Apple Inc. v. Fintiv, Inc.,* "a parallel proceeding in an advanced state implicates considerations of efficiency and fairness, which can serve as an independent reason to apply discretion to deny institution." *See* IPR2020-00019 (hereafter as "*Fintiv*"), Paper 15 at 11 (P.T.A.B. May 13, 2020).

Here, the ongoing district court case is already well-developed. The parties have spent significant resources on discovery and related motion practice directly impacting the issue of validity, including challenges to the sufficiency of party

discovery. *See* Exh. 2001 and Exh. 2002. Given the advanced stage of the district court case, by the time a decision even on institution will be due, fact discovery will have been ongoing for approximately six months, and the parties are already exchanging deposition notices for the intervening timeframe. *See* Exh. 2003 (Docket Control Order) (Order entered on April 19, 2024; Substantial Production Deadline of January 14, 2025; Trial Date Set for August 4, 2025). Moreover, as mentioned above, the jury trial involving the challenged patent is scheduled to begin on August 4, 2025, two months before the Board would issue a final written decision, if any, in this proceeding. Thus, given the advanced stage of the district court case relative to the Petition, the Petition should be denied institution under 35 U.S.C. § 314(a) to avoid needless expenditure of the Board's scarce and valuable resources. *See NHK Spring Co. v. IntriPlex Techs., Inc*., IPR2018-00752, Paper 8 (P.T.A.B. Sept. 12, 2018) (denying institution where the district court proceeding had progressed beyond the close of fact discovery and trial would take place before issuance of the Board's final written decision); *see also Fintiv,* Paper 15 at 13. Indeed, the Board has identified six specific factors relating to the question of "whether efficiency, fairness, and the merits support the exercise of authority to deny

institution in view of an earlier trial date in the parallel proceeding," in line with *NHK Spring* – each of which supports denial here (the "*Fintiv* Factors"). *Fintiv,* Paper 11 at 6.

As set forth below, a fair balancing of the *Fintiv* Factors demonstrates that both the efficiency and integrity of the America Invents Act are best served by denying institution of this Petition.

A. *Fintiv* Factor 1: Whether the court granted a stay or whether evidence exists that one may be granted if a proceeding is instituted.

"A district court stay of the litigation pending resolution of the PTAB trial allays concerns about inefficiency and duplication of efforts," and thus "weigh[s] against exercising the authority to deny institution under NHK." *See Fintiv,* Paper 11 at 6. The Defendant in the district court has not moved for a stay in view of this Petition and there is no reason to believe it will do so. Likewise, Patent Owner has no plan to move for a stay, and prefers to move forward with all efficiency on the current district court schedule. Moreover, it is unlikely that Judge Gilstrap, the presiding judge in the district court case, would grant a stay at this late stage, especially in view of his established three-factor test as follows:

1. Whether the stay will unduly prejudice the nonmoving party;

2. Whether the proceedings before the court have reached an advanced stage, including whether discovery is complete and a trial date has been set; and

3. Whether the stay will likely result in simplifying the case before the court.

See Solas OLED Ltd. v. Samsung Display Co., 2020 WL 4040716 at *1 (E.D. Tex. July 17, 2020) (quoting *NFC Techs. LLC v. HTC Am., Inc.*, Case No. 2:13-cv-1058-WCB, 2015 1069111, at *2 (E.D. Tex. Mar. 11, 2015) (Bryson, J.).

As a threshold issue, Judge Gilstrap "has a consistent practice of denying motions to stay when the PTAB has yet to institute post-grant proceedings." *See System Stormseal PYT Ltd. v. SRS Dist., Inc.,* 2024 WL 1995432 at n.9 (E.D. Tex. May 6, 2024) (characterizing defendant's arguments to the contrary as "irrelevant"). Accordingly, any motion to stay related to this Petition would be considered premature in the district court until *after* an institution decision (if any) is made in this case. By that time, the first prong of the district court's three-factor test (*e.g.,* "Whether the stay will unduly prejudice the nonmoving party") would weigh strongly against a stay for multiple independent reasons. First, at that time, the

rapidly-approaching TikTok Ban H.R. 815 and its impacts on the national security of the United States (as discussed below) would be looming. Second, the district court would be in the claim construction phase, with its trial date moving ever closer. Moreover, it is well established that Plaintiffs' timely enforcement of their patent rights is entitled to some weight, even if that factor is not dispositive. Plaintiffs have also already incurred substantial expenses with this litigation, which would be further exacerbated by additional delay.

Similarly, the second prong of the district court's three-factor test (*e.g.,* "Whether the proceedings before the court have reached an advanced stage, including whether discovery is complete and a trial date has been set") weighs against a stay for similar reasons. Again, the district court will be in the advanced stages, and a trial date has been long-established.

Finally, the third prong of the district court's three-factor test (*e.g.,* "Whether the stay will likely result in simplifying the case before the court") is, at best, neutral. The consolidated district court litigation involves seven patents and the scope of the district court litigation is much broader than the instant Petition. Thus, the Board would have to institute all seven petitions, but even then there would remain

substantial non-addressed invalidity issues for the district court to resolve, including eligibility under § 101, as well as art which is ineligible here (such as product prior art, evidence of a prior sale, and public use). Moreover, Petitioner has put forward a sizeable prior art products defense in which it has identified a number of prior art products for the asserted patents. *See* Exh. 2004 at pages 8 and 12-13. Petitioner has also integrated technical information from these prior art products into its invalidity defenses. As a result, removing the printed publication prior art from Petitioner's invalidity case would have only a minor impact, if any, on the scope of work for the district court. As such, it is extremely unlikely that Judge Gilstrap would grant a stay, even if Petitioner were to request one.

For these reasons, *Fintiv* Factor One weighs in favor of the Board exercising its discretion to deny institution pursuant to § 314(a).

B. *Fintiv* Factor 2: The proximity of the court's trial date to the Board's projected statutory deadline for a final written decision.

As explained in *Fintiv*, "[i]f the court's trial date is earlier than the projected statutory deadline, the Board generally has weighed this fact in favor of exercising authority to deny institution under NHK." *Fintiv,* Paper 11 at 9. Such is clearly the

case here. As discussed above, the district court trial date is set for August 4, 2025, and the Board's final written decision will be due *two months later* on October 5, 2025. Just as in *Fintiv*, the difference between the dates was two months and the Board found that this factor weighed "somewhat in favor" of discretionary denial. *Fintiv*, Paper 15 at 13. Moreover, in this case, the fast-approaching *shutdown of TikTok* by January 19, 2025 (H.R. 815) causes this factor to weigh even more heavily towards a discretionary denial of institution. To reiterate, this Board takes the district court's current schedule at "face value, absent some strong evidence to the contrary." *See Fintiv,* Paper 15 at 13. Petitioner offers no credible evidence demonstrating that the August 4, 2025 trial setting will be moved, nor can it. As such, this factor weighs heavily in favor of discretionary denial.

C. ***Fintiv* Factor 3:** The investment in the parallel proceeding by the court and the parties.

This factor is largely subsumed within Factors 1 and 2, insofar as it is used to assess the likelihood of a stay by the district court, with the corresponding avoidance of duplicative cost or effort. *Fintiv*, Paper 11 at 10. Given the substantial activity conducted in the district court to date, this factor again strongly weighs in favor of

discretionary denial. The parties have exchanged infringement contentions and invalidity contentions, as well as subject-matter eligibility contentions. Moreover, a number of depositions have already been taken. *See, e.g., Intel Corp. v. VLSI Tech. LLC*, IPR2020-00498, Paper 16 at 7-8 (P.T.A.B. August 19, 2021) (finding that issuance of a claim construction order and service of final infringement and invalidity contentions was sufficient investment to warrant discretionary denial).

Still further, the Court has invested time conducting multiple hearings between the parties to resolve various discovery disputes, motions to compel, and Petitioner's Motion to Transfer.

Yet still further, given the national security concerns and the fast-approaching shutdown of TikTok by January 19, 2025 (H.R. 815) it is extremely unlikely that Judge Gilstrap, the presiding judge in the district court case, would grant a stay in this case.

The district court case has advanced such that both the parties and the Court have invested significant resources. Because the exact issues presented by the Petition will almost certainly be tried to at least one jury well before any Final Written Decision would issue on the Petition, and Patent Owner will have invested

enormous resources into the parallel litigations. On these facts, *Fintiv* Factor Three weighs heavily in favor of discretionary denial.

D. ***Fintiv* Factor 4**: The overlap between issues raised in the petition and in the parallel proceeding.

As a threshold matter, it is emphasized here 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. *Philip Morris Products SA v. RAI Strategic Holdings, Inc*., IPR2020-01094, Paper 9 at 21-23 (PTAB January 25, 2021); *see also* 35 U.S.C. § 311(b). This point becomes critical in this case, given the fact that the Petitioner TikTok (in its Invalidity Contentions as served in the District Court) raised purported prior art devices and/or 102(g) prior art defenses *for all 7 patents*. *See* Exh. 2004 at pages 8 and 12-13. Further, any TikTok *Sotera* Stipulation will never include eligibility issues under § 101, which have also been identified and raised by Petitioner in the district court with respect to all 7 patents. *See* Exh. 2005 at Counterclaim Count II.

In view of the foregoing, *Fintiv* Factor Four weighs in favor of discretionary denial because least one jury would have resolved these issues well before any Final

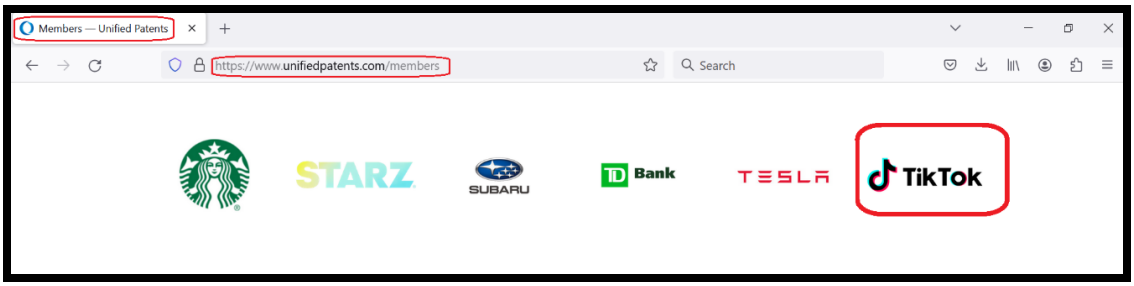
Written Decision would issue on the Petition. These issues will *only* be resolved by the district court, and Patent Owner will have to invest enormous resources into the parallel litigations for such additional invalidity arguments.

Patent Owner further notes that the existing *Sotera* Stipulation executed by Petitioner TikTok states as follows: "TikTok agrees not to pursue any grounds raised in the petition, or any grounds TikTok could have reasonably raised in the petition, in this district court litigation *or any parallel proceeding*." *See* Exh. 1035 (emphasis added). Nevertheless, of course, Petitioner filed the instant Petition as one of seven total against Patent Owner, which were all filed within a five-day period. Those Petitions are the following:

(i) IPR2024-00757 (Patent No. 8,756,336) (Petition filed April 1, 2024)
(ii) IPR2024-00759 (Patent No. 8,862,757) (Petition filed April 1, 2024)
(iii) IPR2024-00760 (Patent No. 8,898,260) (Petition filed April 1, 2024)
(iv) IPR2024-00767 (Patent No. 11,659,381) (Petition filed April 5, 2024)
(v) IPR2024-00768 (Patent No. 11,234,121) (Petition filed April 5, 2024)
(vi) IPR2024-00769 (Patent No. 9,900,766) (Petition filed April 5, 2024)
(vii) IPR2024-00770 (Patent No. 8,904,030) (Petition filed April 5, 2024)

Two weeks later, on April 17, 2024, Unified Patents filed *ex parte* reexamination proceedings against the same Patent Nos. 8,862,757 and 8,898,260. Then, on April 30, 2024, United Patents filed yet a third *ex parte* reexamination

proceeding, this time against Patent No. 8,904,030. Not finished, Unified Patents filed a fourth *ex parte* reexamination proceeding on May 6, 2024 against Patent No. 11,659,381. At the same time, Unified Patents publicized its actions, taking full credit:



See https://www.unifiedpatents.com/members (as captured June 20, 2024).

UnifiedPatents® NETWORK ZONES ANALYTICS

May 16, 2024

Four separate CellSpinsoft data transfer patents challenged

On April 17, 2024, Unified Patents filed *ex parte* reexamination proceedings against U.S. Patent 8,862,757 and U.S. Patent 8,898,260, owned and asserted by Cellspinsoft, Inc., an NPE. The claims of the '757 and '260 patents are directed to uploading multimedia content from a mobile device as segmented data packets and addressing how to handle transmission errors during the uploads.

On April 30, 2024, Unified filed a third *ex parte* reexamination proceeding against U.S. Patent 8,904,030. The '030 patent is generally directed to uploading data to a remote server, where the data comes from a device that does not have network connectivity. The data is transferred from the capturing device to a mobile device via Bluetooth and then the mobile device uploads the data. The system is set up so that the capturing device can notify the mobile device when new data is available to upload.

On May 6, 2024, Unified filed a fourth *ex parte* reexamination proceeding against U.S. Patent 11,659,381. The '381 patent, similar to the '030 patent, is directed to uploading data to a remote server using a mobile device as an intermediary, where the data comes from a device that does not have network connectivity.

View district court litigations by Cellspinsoft. Unified is represented by in-house counsel, Alyssa Holtslander, Jessica L.A. Marks, and Roshan Mansinghani, in these proceedings. Raghav Bajaj, of Haynes Boone, drafted the '030 and '381 reexamination requests.

Tagged: Reexaminations, NPE, Ex Parte

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See https://www.unifiedpatents.com/insights/2024/05/15/cellspinsoft-data-transfer-patents-challenged (as captured June 20, 2024).

On June 6, 2024, Petitioner TikTok submitted its Invalidity contentions in the ongoing district court action, which included the following statements (in two separate instances) which "incorporate by reference … all prior art cited during reexamination proceedings" for the challenged patents (including even unknown future proceedings):

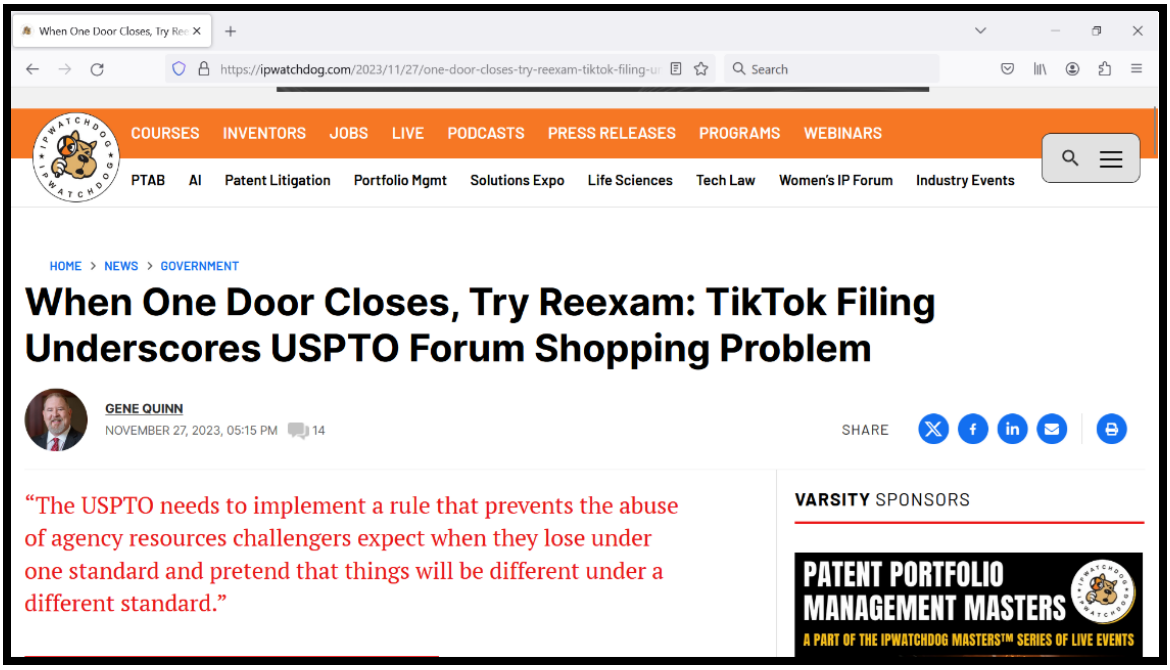
> Defendants incorporate by reference, as if set forth fully herein, all prior art cited during the prosecution of the Segmenting Patents, all prior art cited during reexamination proceedings of the Segmenting Patents, all prior art as described in any future *inter partes* review proceedings of the Segmenting Patents, and all prior art disclosed during previous litigation proceedings. *See, e.g.*,

> Defendants incorporate by reference, as if set forth fully herein, all prior art cited during the prosecution of the Publishing Patents, all prior art cited during reexamination proceedings of the Publishing Patents, all prior art as described in any future *inter partes* review proceedings of the Publishing Patent, and all prior art disclosed during previous litigation proceedings. *See, e.g.*,

See Exh. 2004 (Invalidity Contentions) at 15 and 18.

The problem here is that all circumstantial evidence plainly demonstrates the fact that TikTok is the Real Party in Interest behind the Unified Petitions, inasmuch as TikTok is a known member, and TikTok has a history of similar gamesmanship. Such abuse of the system should not be encouraged or rewarded, and TikTok has

already run afoul of its *Sotera* Stipulation by evidently driving the curious timely filing of the four Unified Patent *ex parte* proceedings. In essence, TikTok seeks to use different parts of the USPTO to invalidate the same patents by circumventing the RPI requirements designed to prohibit such conduct. Again, this is not the first time TikTok has taken this "forum shopping" approach:



See https://ipwatchdog.com/2023/11/27/one-door-closes-try-reexam-tiktok-filing-underscores-uspto-forum-shopping-problem/id=170003/# (as captured June 20, 2024).

But this time, rather than directly filing under its own name, TikTok is using Unified Patents as its proxy. Together with Unified, Petitioner TikTok coordinated and filed four *ex parte* actions within a month of filing the instant IPR Petitions. These indirect actions are exactly what two recognized Intellectual Property, National Security, and National Competitiveness Policy experts have opined about; namely, the practice of so-called "lawfare," in which China's IP-related industrial policy favors the use of legal tools to advance national technology interests. These issues are discussed in more detail herein below, but typically, such interests have the goal of creating an unbalanced playing field with foreigners. *See* Exh. 2006 (Cohen) and Exh. 2007 (Harrison). To the extent TikTok disputes its involvement in the Unified Patent *ex parte* filings, Patent Owner intends to seek discovery concerning same. Plainly, TikTok cannot be allowed to have three unique "bites at the apple" of invalidating the challenged patents (*i.e.,* district court, IPR, *ex-parte*). Therefore, this factor weighs in favor of discretionary denial.

Again, the exact same art is asserted by Petitioner in the district court, as illustrated in the table below:

Patents	District Court - Invalidity Contentions : Prior Art	PTAB – IPR : Prior Art
8,756,**336** 8,862,**757** 8,898,**260**	("Yang"), ("Jung"), ("Livshits"), ("Price"), ("Crichton"), ("Wagner"), ("Wilcock"), ("Lee"), ("Burns"), ("Li"), ("Takahashi"), ("Drescher"), ("Aaltonen"), ("Lind"), ("Pineau"), ("Na")	("Takahashi"), ("Drescher"), ("Aaltonen"), ("Lind"), ("Na")
9,900,**766** 8,904,**030** 11,234,**121** 11,659,**381**	("Hiroishi"), ("Mashita"), ("Onishi"), ("Takahashi"), ("Ando"), ("Nozaki"), (Hiraishi"), ("Wagner"), ("Kusaka"), ("Tanaka"), ("Tagliabue"), ("Hollstrom"), ("Berner"), ("Morris"), ("Kahn"), ("Kusaka"), ("Honda"), ("Singh129"), ("Singh906"), ("Rao"), ("Tran"), ("Yamagishi"), ("Lerman"), ("Montulli"), ("Sesek"), ("Adler"), ("Kang"), ("Hunter"), ("Endsley"), ("Pietruska"), ("Yoo"), ("WO Lind"), ("Lind"), ("Rensin 2007"), ("Rensin"), ("Rosenbloom"), ("Barrus"), ("Peart"), ("Steele"), ("Johnson"), ("Mears"), ("Lind"), ("Hull"), ("Walters"), ("Tsukamoto"), ("Peart"), ("King"), ("Park"), ("Ing"), ("House"), ("Hankey"), ("Lydon"), ("Ekberg"), ("Yoichi"), ("Yu"), ("Singh"), ("Toya"), ("Kawamura"), ("Feinberg") , ("BT Specifications")	("Kahn"), ("Hiroishi"), ("Feinberg"), ("Endsley"), ("Lind"), ("BT Specification")

As illustrated, all of Petitioners grounds here are equally at issue in the district court litigation. Further, the district court allegations (as made by TikTok) also include an alleged prior art product in combination with the same references asserted in the Petition. As a result, the invalidity case in the district court will completely overlap with the grounds raised in this Petition. Because there is overlap of issues raised in the Petition and the district court case, *Fintiv* Factor Four weighs heavily in favor of denial.

E. *Fintiv* Factor 5: Whether the petitioner and the defendant in the parallel proceeding are the same party.

This Factor plainly favors denial, as the Petitioner here (TikTok) is the same defendant as in the district court.

F. *Fintiv* Factor 6: Other circumstances that impact the Board's exercise of discretion, including the merits.

The final *Fintiv* Factor takes into account, *inter alia*, the merits of the Petition in considering whether the discretionary denial should be granted. *Fintiv*, Paper 11 at 14-15. As explained in the *Fintiv* Order, a full analysis is not necessary under this prong; rather, "the parties may point out, as part of the factor-based analysis, particular 'strengths or weaknesses' to aid the Board in deciding whether the merits tip the balance one way or another." *Fintiv,* Paper 15 at 15. Contrary to Petitioner's assertion, the merits of this Petition are *not* strong. As explained in further detail below, Petitioner has failed to show that the Challenged Patent is not entitled to the priority benefit of its Parent Application under 35 U.S.C. § 112 because of a purported lack of written description.

Each limitation that Petitioner identifies as purportedly lacking support is in fact disclosed by the original Parent Application, together with the references

incorporated therein. Such disclosures cumulatively reasonably convey to those skilled in the art that the inventor had possession of the claimed subject matter. As such, the Parent Application satisfies the written description requirement, and Petitioner presents no "other circumstances" that would sway the balance of *Fintiv* Factor Six.

Taken together, the six *Fintiv* Factors weigh in favor of denying institution. Therefore, the Board should exercise its discretion to deny institution of the Petition based on its § 314(a) discretion.

Still further and as detailed below, the Petition does not disclose or suggest key limitations of each of the challenged claims, and therefore does not establish a reasonable likelihood that the Petitioner would prevail with respect to at least one of the claims challenged in the Petition.

G. Discretionary Considerations

The factors advanced by the Board in *Advanced Bionics* also weigh heavily in favor of discretionary denial, especially with respect to Petitioner's "Singh '129 in view of Singh '906" ground. *See Advanced Bionics v. MED-EL Elektromedizinische Gerate GmbH,* IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020) (precedential); *see*

also Becton, Dickinson and Co. v. B. Braun Melsungen AG, IPR2017-01586, Paper 8 (PTAB Dec. 15, 2017) (precedential).

Under *Advanced Bionics,* the Board considers "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." *See Advanced Bionics*, Paper 6 at 7-9. Here, the Examiners were plainly aware of the "original specification" and the "incorporated reference" (Singh '129 and Singh '906, respectively) for nearly two decades, all of which were spent examining the 19 eventual Cellspin patents. The "incorporated reference" Singh '906 was specifically discussed during the prosecution of multiple patents awarded to Cellspin. Moreover, the Examiners clearly understood that Singh '906's "client application 202" and Singh '129's "client application 203" *are not* two separate mobile applications, but rather that application 203 merely emphasizes the Bluetooth and other capabilities to the earlier-referenced "mobile application 202." As such, the Examiners necessarily understood that the Patent Owner did not "mix and match features," but rather extended the "referenced material" to emphasize Bluetooth and other features of the disclosure. Those of ordinary skill would readily understand and appreciate

this evolution of the mobile application feature set because mobile applications naturally expand in this manner. Adding the Bluetooth feature to the existing mobile application is the reason for "incorporated reference" in Cellspin's disclosure.

In sum, the Examiners correctly understood that the challenged claims are entitled to the original priority date, and Petitioner's challenges do not withstand scrutiny. Accordingly, the Board should exercise its discretion under § 325(d) and deny institution.

II. THE BOARD SHOULD OTHERWISE EXERCISE ITS DISCRETION UNDER 35 U.S.C. § 316(B)

Notwithstanding the clear weight of the *Fintiv* Factors, as discussed in detail above, discretionary denial is important and appropriate in instances such as this, in order to deter certain types of Petitions that undermine both the economy and the integrity of the patent system. Such extrinsic factors fall within the Board's authority under at least 35 U.S.C. § 316(b). Indeed, these may be the most important reasons for denial in this specific case.

Here, each of the enumerated § 316(b) factors weigh strongly against institution, regardless of the merits of the Petition or other discretionary factors. This

is because an IPR (if instituted) would cause the Board to interfere with preexisting high level policy matters playing out in real time in the courts and in other parts of the Executive Branch. The Government is presently executing a preexisting and dynamic policy initiative against the Petitioner and Real Party in Interest (TikTok), one which 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). Institution of a trial, in contrast, would transform a branch of the Department of Commerce (this Board) into an instrument that might serve the interests of a company and nation state that all of Congress, the President, the Department of Justice, and the Office of Intelligence and Security, have openly condemned as acting against the interests of the United States and its citizens.

On April 24 2024, President Biden signed into law a foreign aid package (H.R. 815) containing provisions that would require ByteDance, a China-based company, to *divest* its ownership of the social media platform TikTok *or be banned* from distributing its application in any domestic marketplace. Both houses of Congress and the President have made it clear that H.R. 815 impacts the national security of

the United States. *See https://www.congress.gov/bill/118th-congress/house-bill/815/text.* Indeed, before signing the bill into law, President Biden had issued multiple executive actions with a related goal to the TikTok ban: Protecting Americans' sensitive data from being exploited by adversarial "countries of concern." Most recently, the President signed Executive Order (EO) 14117 on February 28, 2024, which seeks to restrain data brokers from selling Americans' data to entities with ties to hostile nations.

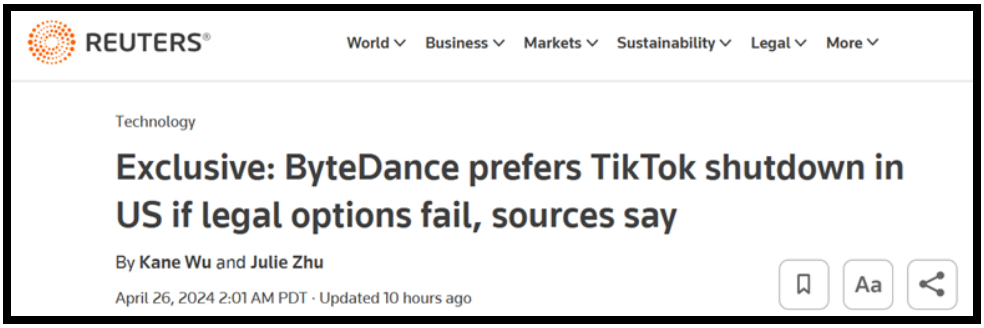
The New York Times

Congress Passed a Bill That Could Ban TikTok. Now Comes the Hard Part.

President Biden has signed the bill to force a sale of the video app or ban it. Now the law faces court challenges, a shortage of qualified buyers and Beijing's hostility.

In raising these issues, Cellspin does not intend to malign Petitioner or its parent company, nor any of its officers or employees. Rather, Cellspin merely raises the obvious point that highly unusual policy factors are impacted by this matter, and the Department of Commerce has already spoken, as the imminent implementation of H.R. 815 will effectively ban TikTok from doing business in the United States.

The best summary of the current state of affairs is that, driven by national security concerns among U.S. lawmakers, H.R. 815 has been overwhelmingly supported in bipartisan fashion, and was promptly signed into law by President Biden. Now, TikTok openly states that the Chinese Communist Party will not allow TikTok to be sold, and it will effectively be shut down on January 19, 2025.



See https://www.reuters.com/technology/bytedance-prefers-tiktok-shutdown-us-if-legal-options-fail-sources-say-2024-04-25/.

See https://www.reuters.com/legal/tiktok-bytedance-sue-block-us-law-seeking-sale-or-ban-app-2024-05-07/.

Further, in a pleading filed by TikTok in the U.S. Court of Appeals for the District of Columbia, it is alleged that divestiture "is simply not possible: not commercially, not technologically, not legally. ... There is no question: the Act (law) will force a shutdown of TikTok by January 19, 2025, silencing the 170 million Americans who use the platform to communicate in ways that cannot be replicated elsewhere." *See* Exh. 2008 at ¶ 3.

Because the national security and related policy issues are unfamiliar in the Board's day-to-day activities, Patent Owner asks the Board to strongly consider all pertinent § 316(b) factors and exercise its discretion to deny institution. The nature of the parties involved and the nature of the underlying technology, coupled with past United States government recognition of economic, national security and national competitiveness risks, are relevant here. Further, United States foreign policy relevant to this case is dynamic and is being directed from the highest levels of government. These factors, if nothing else, should lead to discretionary denial of institution for this IPR.

In another IPR (2021-00476), the Patent Owner assisted the Board through its submission of the testimony of two recognized Intellectual Property, National Security, and National Competitiveness policy experts: Mark Cohen (*see* Exh. 2006), and Suzanne Harrison (*see* Exh. 2007). Mr. Cohen explained that instituting the subject IPR would support Chinese industrial policies that target United States technology companies, and would adversely affect the integrity of the patent system. Exh. 2006 at ¶¶ 8-22. This includes specific Chinese government initiatives involving technologies within the international Cooperative Patent Classification ("CPC"). Exh. 2006 at ¶¶ 9-11. Moreover, as explained, China's IP-related industrial policy favors "lawfare": the use of legal tools to advance national technology interests, typically with a goal of creating an unbalanced playing field with foreigners. Exh. 2006 at ¶ 14. In Mr. Cohen's detailed discussion of the many branches of Chinese industrial policy deployed for this effect, he lays out the extensive nature of Chinese industrial targeting against the technologies and how it undermines the integrity of the market-based United States system. Exh. 2006 at ¶ 21. Factors include non-market interventions that imbalance the playing field: subsidies for Chinese national patent prosecution, IP courts biased against

foreigners, export controls designed to prevent corporate sales, and implementation of the "Made in China 2025" plan in a manner adverse to United States interests. Exh. 2006 at ¶¶ 12-17, and 20. On this point, Mr. Cohen concludes that an IPR should not be instituted absent adequate analysis of the potential impact on the domestic economy and the integrity of the patent system due to Chinese industrial policy non-market interventions in the data technology areas. Patent Owner respectfully submits that such analysis is impossible to achieve at the case-by-case adjudication level, and should rather occur through formal rulemaking to involve the expertise of policy experts on all sides of the debate and the USPTO's own Chief Economist. Mr. Cohen also cogently explains the impact of national security sanctions, and those concerns are further emphasized by the Presidential signing of H.R. 815 and Executive Order (EO) 14117 in 2024. Using the real-world examples of the lengthy dispute (now at the World Trade Organization) brought by Cuba on United States treatment of the "Havana Club" trademark, plus the current Huawei ban, Mr. Cohen further discusses the nature of the President's power to prohibit "transactions" involving intellectual property. Exh. 2006 at ¶¶ 23-27. These economic sanctions raise concerns over the timely completion of this IPR (if

instituted), and economic impact related to the privacy rights of United States citizens.

Further, instituting this IPR would condone TikTok's recognized privacy and national security risks, such that past breaches of privacy rights and their close connection with the technology area of the Patent "do not, in my opinion, merit the privilege of initiating an IPR." Exh. 2006 at ¶¶ 28-31.

Ms. Harrison's expert policy opinion, meanwhile, approaches these complex issues from a different direction, but largely corroborates Mr. Cohen's opinion. Naming China as an "Innovation Warfare" adversary, Ms. Harrison explains the negative impact of allowing an instrumentality of such an adversary (*i.e.,* Petitioner) to use an administrative agency of the United States government to potentially destabilize the United States. Exh. 2007 at 24. Ms. Harrison explains what "national competitiveness" is, and how it includes aspects of economics and national security. Exh. 2007 at 8-9. National competitiveness must address our history of nation states attempting to acquire or misappropriate technology from the United States to enable their own industrial base and/or achieve their own geopolitical goals. Exh. 2007 at 11. She observes that the White House has labeled China's technology transfer

activities as "aggression." Exh. 2007 at 12. Ms. Harrison further notes that there is a current government list that names critical and emerging technologies, which includes "Data Science and Storage" – a field encompassing the Cellspin Patent. Exh. 2007 at 13-16. Ms. Harrison also notes that there are current government lists (of various types) that name economic "bad actors." Exh. 2007 at 21. Applying her "Innovation Warfare" counterstrategy expertise, Ms. Harrison explains that these two types of lists lend themselves to the Board's exercise of discretion in appropriate cases; namely, it should be one of our country's "counterstrategies" to an aggressor nation's anti-United States "Innovation Warfare" to foreclose access (under certain circumstances) to the use of a United States federal agency as a tool against a United States patent holder. In this regard, Ms. Harrison proposes a three-part test that should apply to discretionary institution decisions:

(i) Is the patent at issue related to the Critical and Emerging Technologies list?

(ii) Is there a likelihood that one or more of the Petitioner real parties in interest are acting as an agent of a nation state?

(iii) Is there any other relevant information that is deemed pertinent to the case?

See Exh. 2007 at 23-24.

In application, Ms. Harrison explains that a "yes" answer to the first two questions should normally yield an institution denial. Exh. 2007 at 24. Otherwise, a risk exists that the federal agency might become an adversary's tool against the innovation interests of the nation's citizens. Exh. 2007 at 26. As a federal agency, of course, the USPTO is expected to comply with and uphold efforts that ensure the safety and security of United States citizens and companies, whether through economic, technological, or national security efforts. Exh. 2007 at 24. Here, Ms. Harrison finds that the answers to questions 1 and 2 are "yes," and there are no other factors that would merit departing from the default counterstrategy. Exh. 2007 at 25-26. Consequently, Ms. Harrison corroborates Mr. Cohen, and §316(b) factors counsel exercising discretion to deny institution.

Policy experts agree that the nature of the parties involved and the nature of the underlying technology, coupled with past United States Government recognition of economic, national security and national competitiveness risks, are relevant here. Further, United States foreign policy relevant to this case is dynamic and right now

being directed from levels far higher than this Honorable Board. These factors, if nothing else, should lead to discretionary denial of institution for this IPR.

III. TECHNOLOGICAL BACKGROUND AND STATE OF THE ART

A. The Evolution of the Claimed Invention

Patent Owner Cellspin *first* developed a standalone award-winning mobile app to upload videos and photos generated by the mobile phone camera and mic, but the quality of videos and photos from the mobile phones in existence as of the date of invention was woefully inadequate. As of that date (2007), mobile phones had simple 1 Megapixel inbuilt cameras which, when uploaded, were of very poor quality. Later, the market introduced 5 Megapixel standalone cameras which were far superior to those available in mobile devices. Of course, such cameras were not Bluetooth enabled. As such, Patent Owner Cellspin sought to incorporate those standalone 5 Megapixel cameras by adding more features to its existing mobile app. First, Cellspin moved to *add* Bluetooth capabilities to the camera and to its existing mobile app in order to establish functionality allowing for the uploading of photos from the 5 Megapixel camera to the various websites using Bluetooth. In this process, Cellspin also added more Bluetooth features to its existing mobile app.

The narrative pushed by TikTok in its Petition that these are two completely different mobile apps is demonstrably *false*. The "client application 202" as described in Singh906 and the "client application 203" as described in Singh129 are plainly *not* two separate mobile apps. Rather, "client application 203" is the same as the "incorporated by reference" mobile application (*i.e.,* "client application 202"), with additional Bluetooth features and capabilities. Patent Owner did not, and is not, simply mixing and matching features, it is just extending "incorporated material" with new Bluetooth and other features in the disclosure. Indeed, a POSITA would have readily understood and appreciated this evolution of the mobile app feature set because mobile apps evolve and new features are constantly added to existing apps. In recognition of this fact, the addition of new features is the industry norm, and such would be understood in view of the "incorporation by reference" in Cellspin's written disclosure. Of course, these events in Cellspin's corporate and mobile app evolution are well documented. *See, e.g., www.science20.com/newswire/cellspin_launches_first_apple_iphone_tm_audio_photo_and_text_mobile_blogging_application_for_myspace_facebook_google_bl; see also www.siliconindia.com/magazine_*

articles/cellspin-expanding-cell-phone-to--the-next-level-EDID530863613.html (Exhs. 2016 and 2017, respectively).

B. The State of the Art as of 2007

The state of the art as of 2007 can be best illustrated with reference to one of the "Top Gadgets of the Year," as determined by TIME Magazine: the Nikon Coolpix S51c "Point and Shoot" Camera (No. 2, behind the iPhone). *See https://content.time.com/time/specials/packages/completelist/0,29569,1686204,00.html.* With respect to the Nikon camera, TIME raved over the "built-in wireless capability, so you can email your images or beam them directly from the camera to your Flickr account or to Nikon's own online photo bank." *See id.* (pictured for reference below).

TIME

Tweet

BUSINESS, TECH & SPORTS

Top 10 Gadgets

By Maryanne Murray Buechner | Sunday, Dec. 09, 2007

332 *of* 499

VIEW ALL

#2. Nikon Coolpix S51c

Have you ever maxed out your digital camera's memory card midway through a vacation? The 8-megapixel Nikon Coolpix S51c point-and-shoot is tricked out with built-in wireless capability, so you can email your images or beam them directly from the camera to your Flickr account or to Nikon's own online photo bank. It's also got a 3x zoom and a roomy 3-in. LCD screen — and it comes in black.

Top 10 Gadgets

Further, the Nikon Coolpix upload capabilities in 2007 were *Wi-fi based*, and it was designed such that captured photos were uploaded directly to the Nikon photo-sharing website *without the use of a mobile phone*. *See https://www.imaging-resource.com/PRODS/CPS51C/CPS51CA.HTM* (as reproduced and annotated below):

8.10 Megapixels	3.00x zoom	1/2.5 inch size sensor

Basic Specifications	
Full model name:	Nikon Coolpix S51c
Resolution:	8.10 Megapixels
Sensor size:	1/2.5 inch (5.8mm x 4.3mm)
Lens:	3.00x zoom (38-114mm eq.)
Viewfinder:	LCD
Extended ISO:	100 - 1600
Shutter:	1/2000 - 4 sec
Max Aperture:	3.3
Dimensions:	3.8 x 2.3 x 0.8 in. (98 x 59 x 21 mm)
Weight:	5.0 oz (142 g) includes batteries
MSRP:	$330
Availability:	09/2007
Manufacturer:	Nikon
Full specs:	Nikon S51c specifications

Nikon Coolpix S51c Overview

by Mike Pasini

Review Date: 01/03/08

The Nikon Coolpix S51c has a sleek two-tone body that includes an IEEE 802.11b/g chip set with which to upload its eight megapixel images to the company's "my Picturetown" photo sharing site, or send them

Wi-Fi based

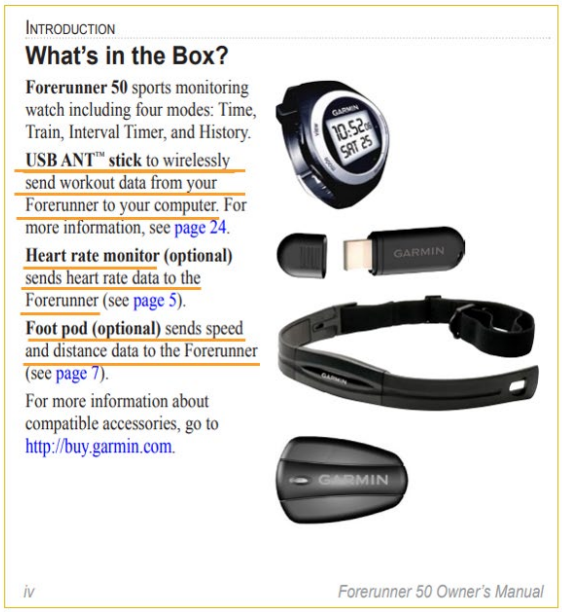
Direct Upload to Site without the Phone

Still further, and as of 2007, the state of the art can be illustrated with reference to the Garmin Forerunner 50, which was an early "sports monitoring watch." The Forerunner offered the ability to send workout data directly from the watch to a computer, but Garmin elected to achieve this using "ANT + Sport Wireless

Technology," *not* Bluetooth, and *not* using a mobile phone. *See, e.g.,* Forerunner 50 Quick Start and User Manuals, available at: *https://support.garmin.com/en-US/?partNumber=010-00679-05&tab =manuals* (as reproduced and annotated, in part, below).

NOV 2007 LAUNCH OF GARMIN FORERUNNER 50

http://static.garmin.com/pumac/Forerunner50_Quickstartmanual.pdf



INTRODUCTION

What's in the Box?

Forerunner 50 sports monitoring watch including four modes: Time, Train, Interval Timer, and History.

USB ANT™ stick to wirelessly send workout data from your Forerunner to your computer. For more information, see page 24.

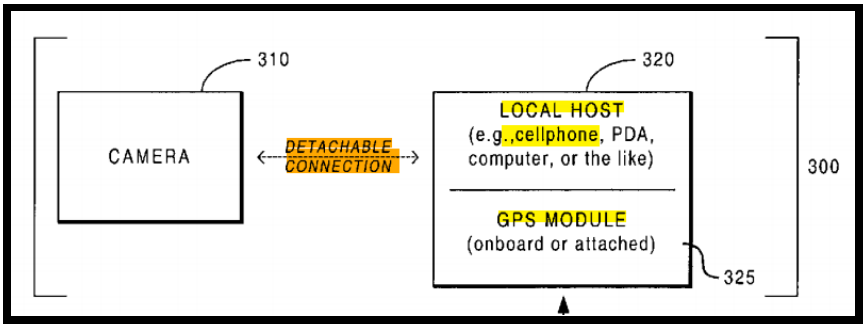
Heart rate monitor (optional) sends heart rate data to the Forerunner (see page 5).

Foot pod (optional) sends speed and distance data to the Forerunner (see page 7).

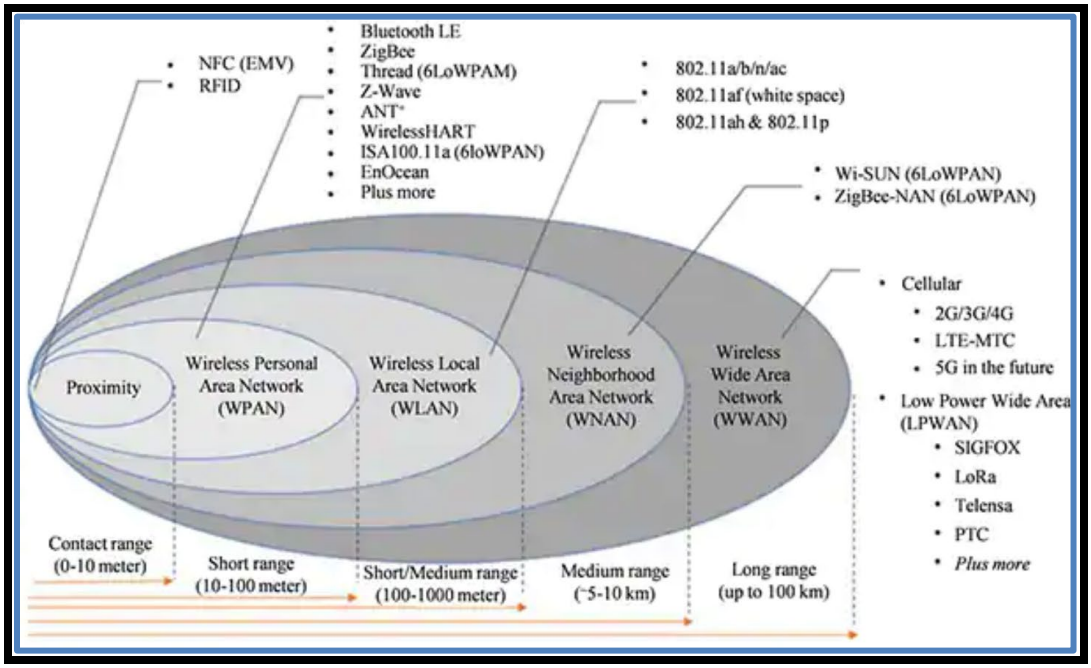
For more information about compatible accessories, go to http://buy.garmin.com.

iv Forerunner 50 Owner's Manual

Meanwhile, references such as Kahn (Exh. 1017, as relied upon by Petitioner) broadly describe such features as: (i) detachable connections; (ii) wireless connections; and (iii) cableless data connections. *See, e.g.,* Kahn (Exh. 1017) at Fig. 3 (annotated):



Critically, Kahn says *nothing* specific about any *short* range, *long* range, or *medium* range wireless method. Rather, Kahn simply identifies a *detachable connection*. As of 2007, however, there were many technologies available, even for simple short-range communications. Such technologies included: (i) ZigBee (IEEE 802.15.4); (ii) Wi-Fi (IEEE 802.11); (iii) Z-Wave (ITU G.9959 Standard); (iv) 6LoPAN (IEEE 802.15.4); (v) Bluetooth (IEEE 802.15.1); (vi) ANT and ANT+ (Garmin); (vii) Near Link; (viii) Near-Field Communication (NFC); (ix) LPWAN; and (x) Ultra-Wideband (UWB). The image below illustrates the wide variety of so-called "detachable connections" and "cableless direct connections" as were available as of 2007:



Each protocol identified above had a specification document ranging from 1000 pages to 5000 pages long. Indeed, even the Bluetooth specification as cited by Petitioner comprises over 1400 pages. *See* Exh. 1019. Each protocol had thousands of options and hundreds of optional features, giving rise to near unlimited permutation combinations on how one could potentially implement such options. Moreover, each protocol has multiple versions, each with its own new lengthy written specification.

For at least the foregoing reasons, it is therefore questionable (even with Hiroisha's "references to Bluetooth") to suggest that a POSITA would have elected to use Bluetooth for the connection from camera to phone. Such is especially questionable, in light of the fact that the user experience with Bluetooth in 2007 was comparatively poor. As of that time, Bluetooth technology was riddled with known "bluejacking" or "bluesnarfing" problems (*see* Exhs. 2018 and 2019), and Petitioner offers no compelling basis to assume that a reasonable POSITA, as of 2007, would have chosen Bluetooth over any of the other available wireless technologies.

Still further, Petitioner offers zero basis to establish that a reasonable POSITA, as of 2007, would have chosen Bluetooth Version 2.1, especially in light of the fact that the iPhone *only supported Bluetooth Version 2.0+EDR* in 2007. *See* Petition (Paper 2) at 30. Indeed, the very fact that the clear leader in mobile phone technology *did not* support Bluetooth 2.1 renders Petitioner's arguments to the contrary plainly unreasonable and without evidentiary support.

iPhone - Technical Specifications

Wireless data	• Wi-Fi (802.11b/g) • EDGE • Bluetooth 2.0+EDR

See https://support.apple.com/en-us/112445 (as cited by Petitioner).

Of course, a POSITA in 2007 *would not* have used Bluetooth 2.1 for this purpose, because not a *single* phone from *any* company was available with Bluetooth 2.1 capabilities at that time. In fact, the first iPhone to support Bluetooth 2.1 did not arrive until late 2009, with the release of the iPhone 3GS. Given the ready availability of many other wireless protocol options (as discussed above), Petitioner has offered zero basis (aside from improper hindsight) for the bare conclusion that a POSITA would have purportedly selected Bluetooth 2.1 in 2007.

Still further, Petitioner offers zero basis to support the position that a POSITA would have implemented authentication and Bluetooth encryption during pairing a camera with a mobile phone in 2007. *See* Petition (Paper 2) at 35 (arguing that "cryptographically authenticating the identity of the cellular phone … [is] required by the Bluetooth protocol"). Indeed, the opposite is far more likely, given the fact

that *none* of the leading-edge digital cameras in 2007 had *any Bluetooth* wireless capability whatsoever. *See https://listverse.com/2007/12/10/top-10-digital-cameras/.* Critically, yet ignored by Petitioner, all of the features which a POSITA would have purportedly decided to combine were purely *optional* in terms of Bluetooth specification requirement. Yet Petitioner and its expert fail to explain why (aside from obvious hindsight) any reasonable POSITA would choose only certain *optional* features in only the specific order, all in accordance with the inventions of the Challenged Claims. Simply put, Petitioner improperly uses the Challenged Claims as a hindsight roadmap.

IV. ARGUMENT

As established herein below, the Board should alternatively deny institution in view of the fact that Petitioner has not established a reasonable likelihood of proving the challenged claims unpatentable by a preponderance of the evidence. As established herein, Petitioner's arguments with respect to priority are unavailing, and the art as cited fails to disclose any "event notification" as recited in the Challenged Claims. Further, the art as cited fails to disclose either the "listening" or

"processing" aspects of the Challenged Claims, or the use of HTTP. Additional failures on the part of the Petition are discussed below.

A. Parent Is Not Prior Art and Cannot Invalidate the Continuation

The Petition argues that the parent application exists as prior art against its own continuation child. Petitioner is incorrect.

Petitioner's Ground Two argument (Singh129 in view of Singh906) is contrary to both the facts and the law. First, the simple fact that Petitioner itself had no problem understanding that the 11/901,802 Application was incorporated by reference, such that Petitioner was here able to perform a detailed analysis of its disclosure, is itself evidence that the act of invoking 37 C.F.R. § 1.57 by the patentee achieved its objective; namely, to convey to the public what the applicant incorporated and claimed as the invention (including essential material). The patentee fully complied with the provisions of 37 C.F.R. § 1.57, as illustrated below:

> 2. The following patent application is incorporated herein in its entirety: U.S. Non-provisional patent application Ser. No. 11/901,802, titled "Online Publishing of Multimedia Content", filed on Sep. 19, 2007 in the United States Patent and Trademark Office. 50

See '121 Patent [Exh. 1005] at 1:48-52.

The patentee's clear and unambiguous incorporation by reference of Application No. 11/901,802 ("the '802 Application") is fully compliant with 37 C.F.R. § 1.57, and provides the public with clear signposts and guidance. Moreover, the Patent Examiners clearly understood and appreciated the fact that the '802 Application was fully incorporated by reference, inasmuch as such disclosure was extensively referenced and discussed during prosecution of multiple patents in the family, including the applications issuing as the '121 Patent and United States Patent No. 11,659,381, as well as Application No. US18/193,686. Further, the prosecution history also mentions the fact that Publication No. 2008/0103906 A1 is the published version of the '802 Application, and such is referenced as written support for a number of limitations. By way of example:

Support for the limitation: "*use HTTP to send user preferences to the user data publishing website over the cellular data network, wherein the user preferences comprise global positioning system information*" in claim 7 is found in:

(a) Point No. 2 of "CROSS REFERENCE TO RELATED APPLICATIONS" in the originally filed application, which states as follows: "*The following patent application is **incorporated herein in its entirety**: US Non-provisional patent application serial number 11/901,802, titled "Online Publishing of Multimedia Content", filed on September 19, 2007 in the United States Patent and Trademark Office." USPTO Publication No. 2008/0103906 A1 is the published application of US Non-provisional patent application serial number 11/901,802. US Non-provisional patent application serial number 11/901,802 is attached to the response to previously submitted response to non-final office action as Exhibit A and USPTO Publication No. 2008/0103906 A1 is attached to the previously submitted response to non-final office action as Exhibit B; see also link: https://patentimages.storage.googleapis.com/1f/06/a0/32f9a69fbef2a6/US20080103906A.pdf.*"

(b) Paragraph [0023] of Exhibit B, which states: "*The multimedia object is published 108 by the front end service 204b according to the user preferences on one or more publication virtual spaces 205 via the network 203. **The user preferences** may comprise **authentication credentials**, transaction identification, **a list of publication virtual spaces 205**, **global positioning system geographical codes**.*"

(c) Paragraph [0024] of Exhibit B, which states: "*The multimedia object is then transferred 107 from the back end service 204c to the front end service 204b and published 108 by the front end service 204b on one or more publication virtual spaces 205 according to **user preferences**.*"

In response to the above rejection, applicant submits that the recitation: "*use HTTP to send user preferences to the user data publishing website over the cellular data network, wherein the user preferences comprise global positioning system information*" in amended claim 7 is supported in the following paragraphs of Exhibit B:

(a) Paragraph [0018] of Exhibit B, which states: "The client application 202 communicates the user publishing information including the **user preferences of the publication virtual spaces 205** to the front end service 204b".

(b) **Paragraph [0023] of Exhibit B**, which states: "The **user preferences may comprise authentication credentials**, transaction identification, **a list of publication virtual spaces 205**, **global positioning system geographical codes**".

(d) Paragraph [0061] of Exhibit B, which states: "The **transport protocol that is used** between the client application 202 and the publishing service 204 may be **hypertext transfer protocol (HTTP)**".

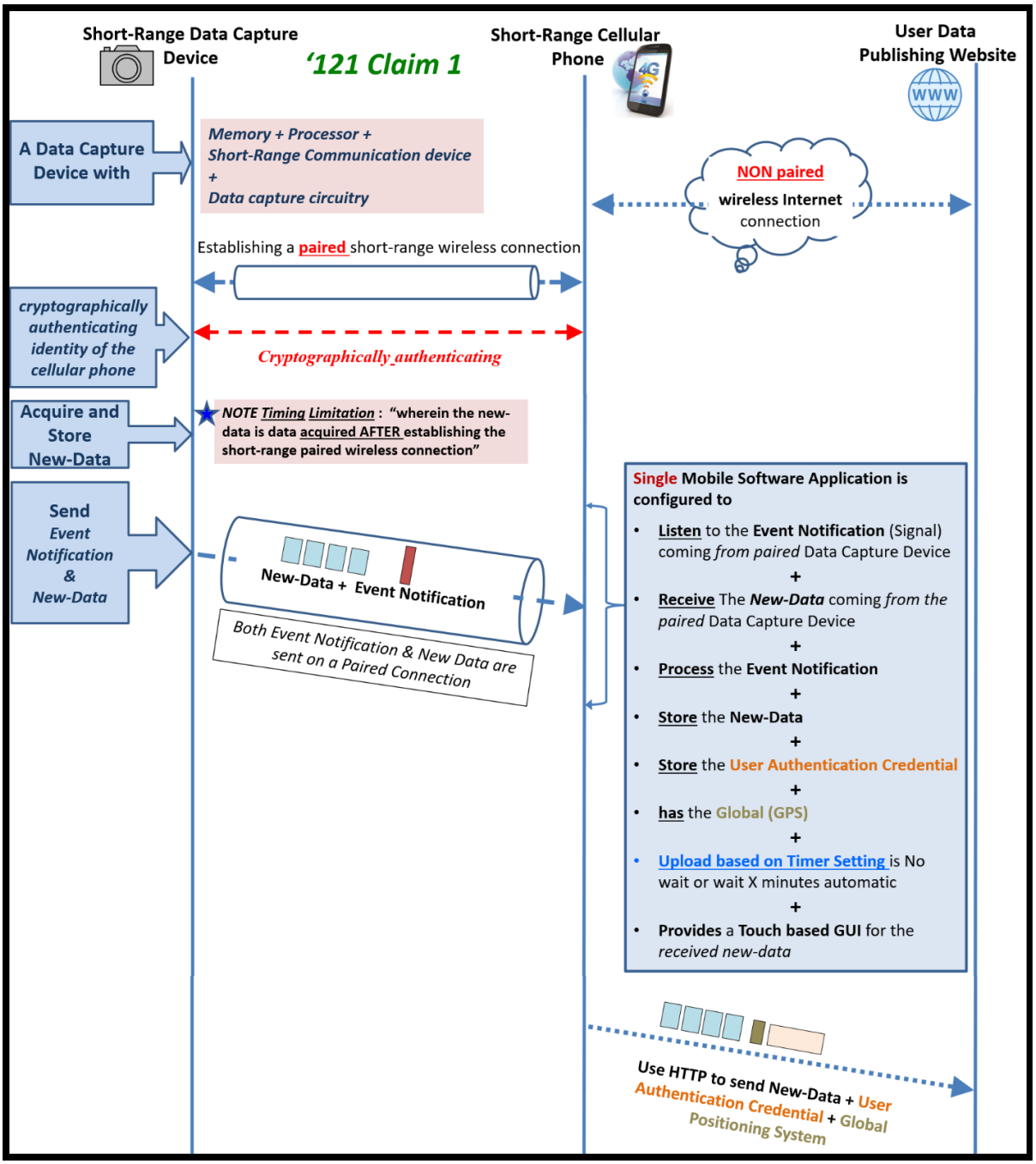
> At the time of filing, the '373 application recited on page 2, item 2 of the application that the prior filed application no. 11/901,802 ('802 application, Exhibit A) is incorporated in its entirety in the '373 application.
>
> The '802 application (Exhibit A) was pending, and not abandoned, at the time of filing of the '373 application.
>
> 37 CFR 1.57(a)(1)(i) and 37 CFR 1.57(a)(1)(ii) are not applicable to the '802 application (Exhibit A), and since the '802 application (Exhibit A) was incorporated by reference in its entirety in the '373 application, 37 CFR 1.57(a)(1)(iii) is satisfied.
>
> (h) Enclosed: (a) Copy of pages 1 and 2 of the specification of pending application no. 17/542,373 ('373 application).
>
> Support for claim 6 is found in paragraph [0042] of Exhibit B.

See Exh. 2013 (Combined Excerpts from Prosecution Histories of the '121 and '381 Patents) at 30-36 ('121 Patent) and 40-47 ('381 Patent).

As discussed during prosecution, the referenced material was properly incorporated by reference. To reiterate and briefly summarize what was argued by the patentee during prosecution, it is well-established that incorporation by reference "provides a method for integrating material from various documents into a host document . . . by citing such material in a manner that makes clear that the material is effectively part of the host document as if it were explicitly contained therein."

Cook Biotech Inc. v. Acell, Inc., 460 F.3d 1365, 1376 (Fed. Cir. 2006) (internal quotation omitted). Further, the Court of Appeals for the Federal Circuit has expressly held that statements of incorporation, such as the one used in the instant case by the patentee, fully satisfied the requirements of 37 C.F.R. § 1.57 such that the referenced disclosure is incorporated in its entirety and without limitation. *See, e.g., Paice LLC v. Ford Motor Co.,* 881 F.3d 894, 907-911 (Fed. Cir. 2018); *see also* Exh. 2013 at 41-44 ('381 Patent). As such, there can be no legitimate argument that the full disclosures of the '802 Application are not incorporated, without limitation, into the disclosures of the Challenged Patent. Petitioner's arguments to the contrary are without merit.

B. The ’121 Patent



As the Petition itself makes clear, there is *zero* prior art which even arguably anticipates any Challenged Claim. *See* Petition (Paper 2) at 1 (identifying two purported grounds under § 103). Petitioner's obviousness arguments are not convincing, and aside from a threshold failure to disclose all elements as claimed, such references would never have been collectively considered by one of ordinary skill in 2007 in the first place.

Petitioner's arguments fail. The Challenged Claims should be affirmed as patentable over the cited art.

C. All Claims Are Disclosed in Priority Documents

Petitioner argues that: "Each Challenged Claim requires 'a mobile software application for a Bluetooth enabled cellular phone, wherein the mobile software application is embodied as executable program instructions that, when executed by a processor of the Bluetooth enabled cellular phone, [is] configured to' perform several different functions. No such system is disclosed in the priority documents." *See* Petition (Paper 2) at 11. Of course, Petitioner's position is demonstrably false.

Even a cursory review of the original Provisional Application upon which the '121 Patent claims priority (Provisional Application No. 61/017,202) ("the '202

Application"), as filed, shows that the term "mobile device" is used dozens of times to disclose precisely that which Petitioner complains is missing, as is the term "client application." *See* '202 Application (Exh. 2020) at, *e.g.,* 2:19-21 ("The *client application on the BT enabled mobile device* 20 *detects the captured data, multimedia content, and the associated files on the digital data capture device* by communicating over a wireless BT protocol"); at 2:26-29 ("The user may configure timer settings and select the websites for publishing *using the client application on the BT enabled mobile device*. The *client application* on the BT enabled mobile device then *automatically publishes* the transferred data and multimedia content on one or more websites using the settings configured by the user"); at 6:3-5 ("The digital data capture device 201 then automatically transfers 106 the captured data, the multimedia content, and the associated files *to the client application 203 on the mobile device 202* using one or a combination of file transfer protocols"); at 7:2-3 ("[T]he *client application* 203 partitions the multimedia content stored on the mobile device 202 into multiple data segments"); at 7:18-22 ("If the user configures the timer setting to 'wait-X-minutes-automatic', the *client application* 203 will wait for 'X' 20 minutes for the user to change or cancel publishing. If there is no user action

for 'X' minutes, the *client application* 203 will automatically publish the data and multimedia content to one or more websites based on the user preferences"); and at 8:16-19 ("The *client application 203 on the mobile device 202 comprises* a BT association protocol module 203a, a data and file monitoring and detection module 203b, a data transfer protocol module 203c, a data storage module 203d, a graphical user interface (GUI) 203e, and a media publishing module 203f") (emphasis added). Again, these instances are merely exemplary, as the specification literally explains the operation of the mobile application in full detail from beginning to end.

Moreover, all of: (i) "mobile phone;" (ii) "cellular network;" (iii) "software instructions;" and (iv) "software programs" are each discussed in detail, not only in the main specification of the '202 Application, but also in the materials which were incorporated by reference therein. By way of example, the '202 Application teaches how "executable functions" are carried out: "[A] processor, for *e.g.*, one or more microprocessors will receive instructions from a memory or like device, and execute those *instructions*, thereby performing one or more processes defined by those *instructions*." *See* '202 Application (Exh. 2020) at 14:17-20. Further, the cellular connection is disclosed: "The network 402 may be a wireless network, a cellular

network, or the internet 501"). *See id.* at 10:30-31. Likewise, the claimed "object" is illustrated, including: "BT profile protocols such as the Object Exchange (OBEX) Protocol, the Generic Object Exchange Profile (GOEP) protocol, etc"). *See id.* at 6:5-7; *see also id.* at 10:26-28 ("The segment identifiers are used later by the back-end service 401b of the publishing service 401 to reassemble the data segments in a predetermined sequence *to create a multimedia object*").

These examples are merely illustrative, as the Application plainly (and repeatedly) offers written support for the claimed "mobile application," and Petitioner's arguments to the contrary have no basis.

To the extent Petitioner suggests that the patentee did nothing more than "mix and match" elements from two disparate disclosures, Patent Owner again emphasizes that it had developed and successfully marketed an existing mobile application which was limited in practice by the low-resolution images captured on mobile phones. With the advancement in stand-alone digital camera technology and the absence of Bluetooth capability in such devices, the Patent Owner enhanced its mobile application to fill the void. As discussed in more detail above, the notion that these iterations of the mobile application were separate and distinct is plainly

false, inasmuch as the "client application 202" as described in Singh906 and the "client application 203" as described in Singh129 are iterations of the exact same mobile application.

D. Claim Construction

Petitioner broadly alleges obviousness, despite failing to give proper limiting construction to any term. In fact, there are numerous distinct terms of art recited in the Challenged Claims, including: (i) pairing; (ii) cryptographically authenticating; (iii) after establishing the short-range paired wireless connection; and (iv) the recited order of operations. As such, Patent Owner submits the following claim construction issues to be resolved.

1. recited order of certain operations

Patent Owner submits that the Board must construe the Challenged Claims with the understanding and recognition that the express order of certain operations as recited therein is integral to the novelty of the approach. By way of reference, Petitioner's Ground 1A combination considers the entirety of the Bluetooth Specification (Exh. 1019). A major and dispositive problem for Petitioner is the fact that the Bluetooth Specification comprises more than 1400 pages, sets out thousands

of optional features, and could be configured in countless potential combination configurations. Nevertheless, Petitioner contends that a POSITA would have naturally selected components to operate in the exact combination (and in the exact order) contemplated in the Challenged Claims.

In a related matter, the District Court for the Northern District of California construed the claims of United States Patent Nos. 8,738,794, 8,892,752, and 9,749,847. *See* Order (Exh. 2014). While the claims at issue in that litigation are materially different from those being challenged here, Patent Owner makes reference to the fact that the order of certain operations was viewed as limiting as to the specific claims at issue in that case. *See* Order (Exh. 2014) at 9-13. Similarly, with respect to the Challenged Claims, the order of certain recited operations performed by the devices is key and limiting. More specifically, and with respect to all Challenged Claims: (i) new-data is necessarily limited to data acquired *after* establishing the short-range paired wireless connection; and (ii) storage of the new data necessarily follows the initial acquisition of the said new data.

2. after establishing the short range paired wireless connection

Patent Owner further submits that the Board must also construe the phrase "after establishing the short range paired wireless connection" in order to properly assess the defects in the Petition. By way of reference, the term appears in the Challenged Claims, in context, variously as follows: "wherein the new-data is data acquired after establishing the short-range paired wireless connection between the short-range wireless enabled data capture device and the short-range wireless enabled cellular phone." *See* '121 Patent (Exh. 1005) at Claim 1. It is noted that the district court, in a related matter, construed the similar phrase "after the paired connection is established" as: "after the paired connection is established and maintained on a continuous basis." *See* Order (Exh. 2014) at 13, 15, and 23.

Here, Patent Owner submits that the "continuous basis" aspect of the earlier construction should be adopted again as to the referenced limitation. As such, Patent owner submits that the proper construction of "after establishing the short range paired wireless connection" should be: "after the short range paired wireless connection is established and maintained on a continuous basis."

E. Legal Framework

While Patent Owner recognizes the Board's knowledge and familiarity with the pertinent law as it relates to obviousness, certain principles are emphasized here.

A claimed invention is unpatentable for obviousness under 35 U.S.C. § 103 "if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious" to one of ordinary skill in the relevant art. *Intercontinental Great Brands LLC v. Kellogg N. Am. Co.*, 869 F.3d 1336, 1343–44 (Fed. Cir. 2017) (quoting 35 U.S.C. § 103). Under that provision, the challenger must establish by clear and convincing evidence that "the differences between the subject matter sought to be patented 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." *Id.*

When several prior art references are considered, a patent may not be found invalid as obvious unless the party challenging the validity of the patent has provided evidence showing that: (i) "a skilled artisan would have had reason to combine the teaching of prior art references to achieve the claimed invention," and (ii) "that the

skilled artisan would have had a reasonable expectation of success from doing so." *PAR Pharm., Inc. v. TWI Pharms., Inc.*, 773 F.3d 1186, 1193 (Fed. Cir. 2014); *see also In re Stepan Co.*, 868 F.3d 1342, 1346 n.1 (Fed. Cir. 2017) ("Whether a rejection is based on combining disclosures from multiple references, combining multiple embodiments from a single reference, or selecting from large lists of elements in a single reference, there must be a motivation to make the combination and a reasonable expectation that such a combination would be successful").

When determining the question of obviousness, the Board must consider the underlying facts, including the scope and content of the prior art, differences between the claims and the prior art, the level of ordinary skill, and other secondary considerations, if any. *See Graham v. John Deere Co.,* 383 U.S. 1, 17–18 (1966). The question of obviousness must be in the context of the claimed subject matter, as a whole. *See KSR Int'l Co. v. Teleflex Inc.,* 550 U.S. 398, 406 (2007); *see also W.L. Gore & Assocs. v. Garlock, Inc.,* 721 F.2d 1540 (1983) (It is legal error to "consider claims in less than their entireties" and "consider the references in less than their entireties, *i.e.*, disregard disclosures in the references that diverge from and teach

away from the invention at hand"); *InTouch Techs., Inc. v. VGO Commc'ns, Inc.,* 751 F.3d 1327, 1351 (Fed. Cir. 2014); *Metalcraft of Mayville, Inc. v. Toro Co.,* 848 F.3d 1358, 1367 (Fed. Cir. 2017).

Of course, "[o]bviousness requires more than a mere showing that the prior art includes separate references covering each separate limitation in a claim." *Unigene Labs., Inc. v. Apotex, Inc.,* 655 F.3d 1352, 1360 (Fed. Cir. 2011). "Rather, obviousness requires the additional showing that a person of ordinary skill at the time of the invention would have selected and combined those prior art elements in the normal course of research and development to yield the claimed invention." *Id.*; *Trivascular, Inc. v. Samuels,* 812 F.3d 1056, 1066 (Fed. Cir. 2016) ("Although the KSR test is flexible, the Board 'must still be careful not to allow hindsight reconstruction of references . . . without any explanation as to how or why the references would be combined to produce the claimed invention'"). Indeed, the Federal Circuit stated that "it is improper to combine references like separate pieces of a simple jigsaw puzzle without explaining what reason or motivation one of ordinary skill in the art at the time of the invention would have had to place these pieces together." *Merck Sharp & Dohme B.V. v. Warner Chilcott Co., LLC,* 711 F.

App'x 633, 636 (Fed. Cir. 2017) (internal quotations and brackets omitted). "The inventor's own path itself never leads to a conclusion of obviousness; that is hindsight." *Otsuka Pharm. Co. v. Sandoz, Inc.,* 678 F.3d 1280, 1296 (Fed. Cir. 2012). Specifically, "[i]t is inappropriate to use the template provided by the inventor, to render the inventor's contribution obvious." *Orexo AB v. Actavis Elizabeth LLC,* 903 F.3d 1265, 1271 (Fed. Cir. 2018).

When a Petitioner does not articulate a reason to combine references, other than a generic statement of anticipated success in doing so, there is an insufficient showing that an ordinarily skilled artisan would have been motivated to do so. *Hulu, LLC v Soundview Innovations LLC,* IPR2018-01039, Paper 34, 22 (August 5, 2019) (informative) (discussing *Belden Inc. v. Berk-Tek LLC,* 805 F.3d 1064, 1073 (Fed. Cir. 2015)) ("[O]bviousness concerns whether a skilled artisan not only could have made but would have been motivated to make the combinations … of prior art to arrive at the claimed invention."); *see also TQ Delta v. Cisco Sys., Inc.,* 942 F.3d 1352, 1359 (Fed. Cir. 2019) ("Rejections on obviousness grounds, in particular, cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal

conclusion of obviousness." citing *KSR,* 550 U.S. at 418 and *In re Kahn,* 441 F.3d 977, 988 (Fed. Cir. 2006)); *Polaris Indus., Inc. v. Arctic Cat, Inc.,* 882 F.3d 1056, 1068 (Fed. Cir. 2018); *Personal Web Techs., LLC v. Apple, Inc.,* 848 F.3d 987, 993-94 (Fed. Cir. 2017) (vacating Board's motivation-to-combine finding because the Board's "reasoning seem[ed] to say no more than that a skilled artisan, once presented with the two references, would have understood that they could be combined. And that is not enough: it does not imply a motivation to pick out those two references and combine them to arrive at the claimed invention"). Likewise, failure to adequately support a contention that there are a limited number of finite solutions to choose from yields an unsupported petition. *Current Lighting Solutions v. Jiaxing Super Lighting Electric Appliance Co., Ltd.,* 2023 WL 5319763 at *11 (PTAB August 16, 2023).

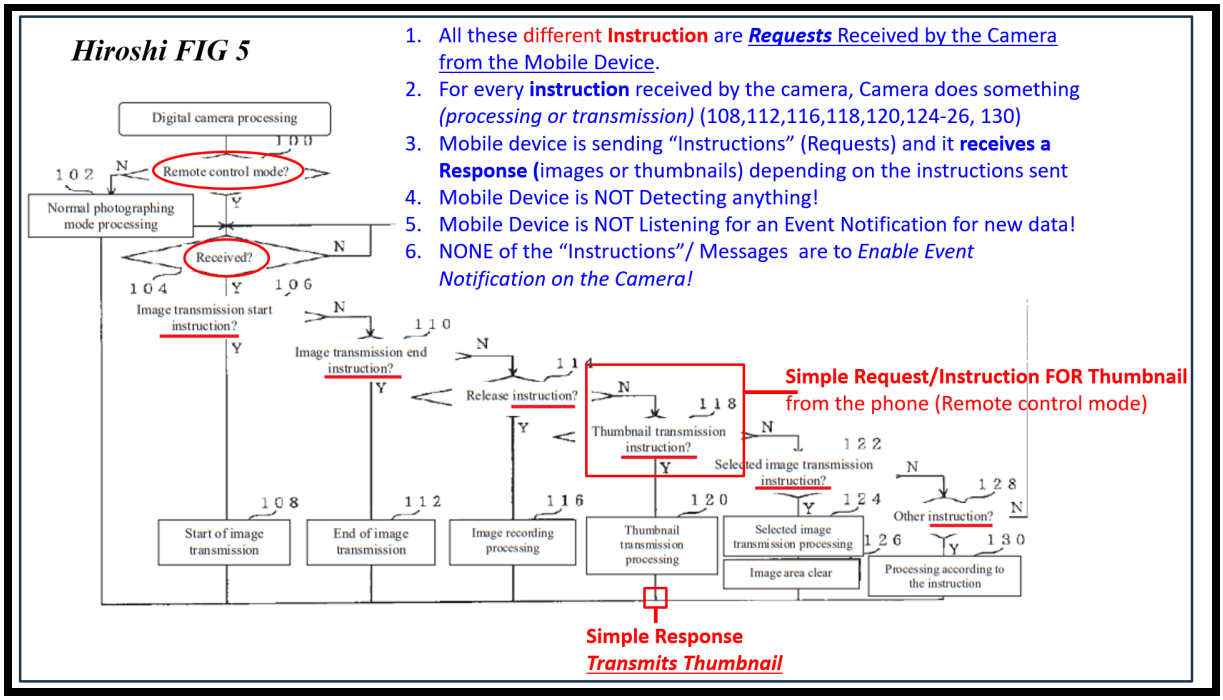
Prior art combinations which employ differing approaches for different purposes do not support a finding of obviousness. *See, e.g., Ericsson Inc. v. Koninklijke,* IPR2023-00524 at Paper 13 at 34 (FN. 11).

F. Ground One Fails

Petitioner argues that the combination of Hiroishi with Kahn, Endsley, and Bluetooth, renders each of Challenged Claims 1-10 obvious. *See* Petition (Paper 2) at 1. As shown below, Petitioner's arguments with respect to the four independent Challenged Claims (1, 4, 7, and 9) each fail and, as such, all of Petitioner's Ground 1 arguments necessarily fail.

1. No "Detection of New Data"

Challenged Claim 9 recites a "detection" of new data for transfer. *See* '121 Patent (Exh. 1005) at Claim 9. With respect to such limitation, Petitioner erroneously relies upon the "reception of the thumbnail images" as purported prior art to the "detection" step. *See* Petition (Paper 2) at 62. Of course, the reception of thumbnail images in Hiroishi cannot possibly meet the "detection" step, as recited. This fact can best be illustrated with reference to Figure 5 of Hiroishi, as set forth and annotated below:

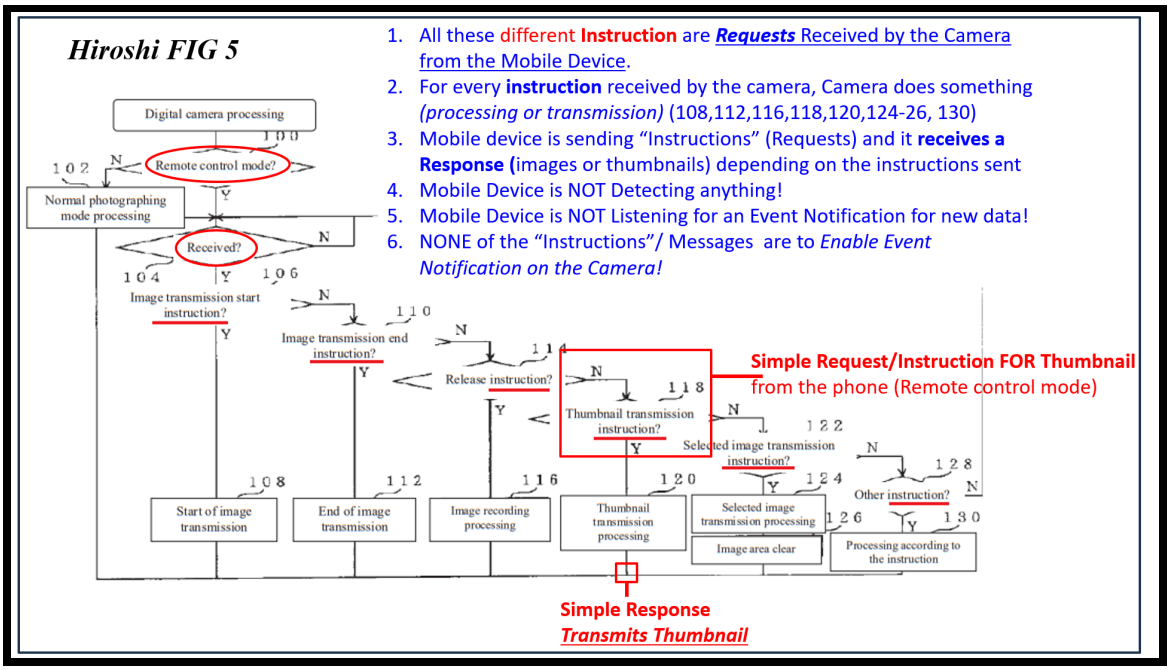


See Hiroishi (Exh. 1011) at Fig. 5.

As illustrated, the process contemplated in Hiroishi calls for a sequence of instructions sent from the mobile device to the camera. As such, 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. The mobile device of Hiroishi does not "detect" anything, and Petitioner's arguments thus fail.

2. No "Event Notifications"

All Challenged Claims recite the sending and receiving of "event notifications." As illustrated in the annotated Figure below (*see* Hiroishi (Exh. 1011) at Fig. 5, as annotated), the process of Hiroishi simply calls for a sequence of instructions sent from the mobile device to the camera. Under that architecture, the mere receipt of a reply to an instruction/request cannot be reasonably understood as an "event notification" as claimed.



Nevertheless, Petitioner relies on the *thumbnail transmission* as a purported event notification. *See* Petition (Paper 2) at 39 ("a thumbnail and/or data related to the thumbnail would operate as a notification signal;" and "transmission of thumbnails as event notifications"); *see also id.* at 40 ("Hiroishi sends thumbnails to the cellular phone;" and "Upon receipt of the thumbnails, the cellular phone is notified that the pictures represented by the thumbnails are available;" and "thumbnails provide a straight-forward event notification to the user"). Petitioner's position is untenable, inasmuch as there is nothing in Hiroishi that performs as an event notification.

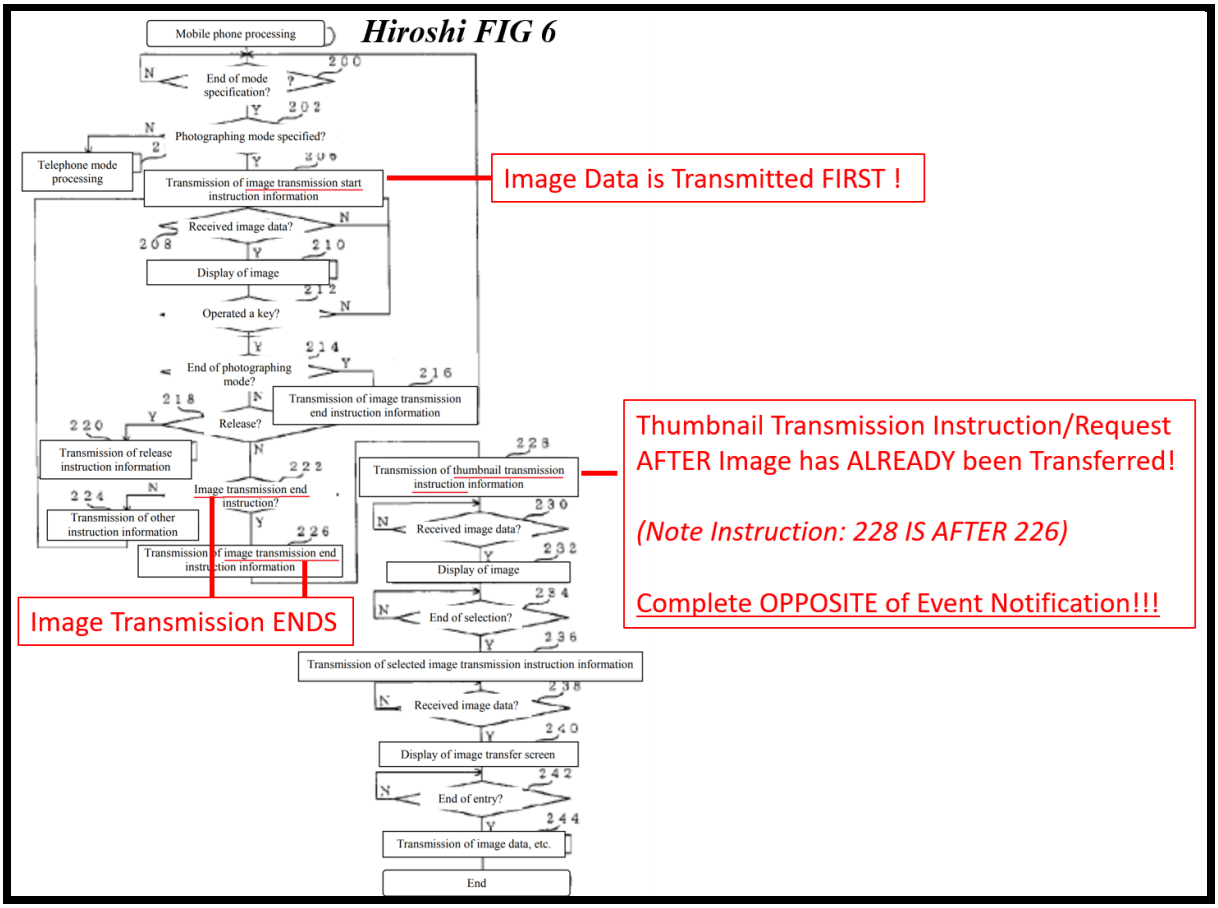
First, it is undisputed that Hiroishi clearly says that the referenced "*thumbnail transmission instruction"* is the information for instructing the transmission of the image data. *See* Hiroishi (Exh. 1011) at [0068] ("*Thumbnail transmission instruction* information ... is the information for instructing the transmission of the image data showing the thumbnail of the image shown according to the digital image data stored in SDRAM 55A"). As such, it is plainly *not* "to enable event notifications."

Second, the "enablement of event notifications" as claimed is a single occurrence, and would not be characterized or satisfied by a transmission associated

with each and every new image taken. Under Petitioner's view; namely, that the transmission of thumbnail instructions is performed "to enable event notifications," then the process of "enabling event notifications" would be required for every new image requested by the phone. This 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.

A reasonable POSITA would have clearly understood that a mobile device sending a "thumbnail transmission instruction" to the camera, followed by the receipt of the thumbnail, *is a simple request-response transaction* between the two devices that needs to be done *for each new thumbnail.* It is plainly *not* an "enabling of event notifications for the new data" by any means.

Moreover, as taught by Hiroishi: (i) the image data is transmitted *first*; (ii) the transmission *ends*; and *then* (iii) the thumbnail transmission instruction is sent. *See* Hiroishi (Exh. 1011) at Fig. 6 (as annotated and set forth below):



Again, Hiroishi teaches the *opposite* of "Event Notifications," and is designed this way because, when a thumbnail transmission instruction is sent, the received data is a "plurality" of thumbnails for selection by the mobile user to print or delete. *See id.* at [0084] ("selected by the operator of the mobile phone 40 from a *plurality* of images shown by the thumbnails transmitted *according to the thumbnail transmission instruction* information"); *see also id.* at [0105] ("Once the [plurality

of] thumbnails are displayed on the display unit 47, an operator presses the UB, DB, or KB key provided on the mobile phone 40 to select a desired image (the image [the operator] desires to request a print shop to make prints"). A POSITA would not understand the receipt of a "plurality of thumbnails" *on request* is to be an "event notification" in any sense of the word, for the new image that was just taken. Simply put, Hiroishi has very little in common with the teachings and claims of the '030 Patent.

Still further, Petitioner makes the curious argument that "Bluetooth also discusses polling as an example of event notification." *See* Petition (Paper 2) at 40. The deficiencies in this argument are many, but primarily it must be recognized that Polling and Event Notification are two very different methods. They are not examples of one another, they are not related and, in fact, are *conceptual opposites*.

Petitioners cite to the Bluetooth "Sniff Mode" and "POLL type data packets" in support of its argument. *See* Petition (Paper 2) at 42. Petitioner's error begins with the fact that each are plainly relegated to very low Baseband Level and Layer 2, which have nothing whatsoever to do with the executions recited in the Challenged Claims. Again, the Claims are directed to *Mobile Client Applications*

which operate in the Application Layer. As illustrated below, Bluetooth "Polling" is performed at the Baseband Level – not at the Application Layer. *See* Bluetooth specification (Exh. 1019) at 332 (as reproduced and annotated below):

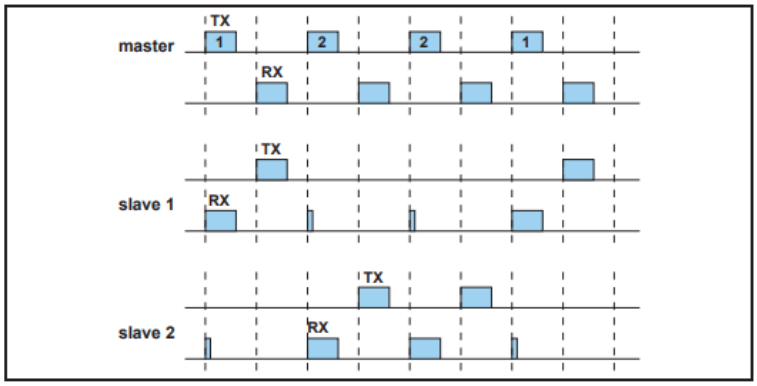


Figure 8.6: RX/TX timing in multi-slave configuration

For ACL logical transports the mode selection may be left to real time packet type selections. The packet type table (ptt) in section 6.5 allows the selection of Basic Rate or Enhanced Data Rate for each of the packet type codes, however; the DM1 packet is available in all packet type tables. ACL traffic over this given physical or logical link shall utilize the packet types in the given column of Packets defined for synchronous and asynchronous logical transport types.

8.6.1 Polling in the active mode

The master always has full control over the piconet. Due to the TDD scheme, slaves can only communicate with the master and not other slaves. In order to avoid collisions on the ACL logical transport, a slave is only allowed to transmit in the slave-to-master slot when addressed by the LT_ADDR in the packet header in the preceding master-to-slave slot. If the LT_ADDR in the preceding slot does not match, or a valid packet header was not received, the slave shall not transmit.

The master normally attempts to poll a slave's ACL logical transport no less often than once every T_{poll} slots. T_{poll} is set by the Link Manager (see [Part C] Section 4.1.8 on page 234).

The slave's ACL logical transport may be polled with any packet type except for FHS and ID. For example, polling during SCO may use HV packets, since the slave may respond to an HV packet with a DM1 packet (see Section 8.6.2 on page 162).

8.6.2 SCO

The SCO logical transport shall be established by the master sending an SCO setup message via the LM protocol. This message contains timing parameters

Petitioner offers yet another argument in pointing to the "timestamp with the image data" taught by Kahn as a purported "event notification." *See* Petition (Paper 2) at 43. This argument wholly lacks merit, inasmuch as the mobile device of Kahn *does not* listen for timestamps from the camera as any type of event notification signal. Further, it is clear that the Kahn mobile device does *not* "process" the timestamp as an event notification signal, as required by the Challenged Claims. Indeed, every file has a timestamp; this does not make a timestamp an event notification.

Relatedly, Petitioner proposes that the simplified request/response sequencing of Hiroishi is actually a disclosure of the recited step of: "listening for an event notification" on the Bluetooth enabled mobile device. *See* Petition (Paper 2) at 44 ("Hiroishi's phone 40 is configured to listen ('wait') for the thumbnail in response to the thumbnail request"). Petitioner's argument, once again, does not withstand scrutiny, as the simple *request-response* for thumbnails disclosed in Hiroishi have literally *nothing* to do with listening for an event notification. The "event notification" concept is completely different from requesting and receiving a thumbnail. By way of example, under Petitioner's theory, the mobile device is

required to send a request to the camera for every thumbnail (a purported "event notification"). This process wholly defeats the purpose of enabling "event notifications," which are designed and intended to serve as a singular act – not events repeated for every bit of new data. By way of alternate example, in Kahn, every *request-response* for a file includes a timestamp. Indeed, every computer file has a time stamp, and Kahn mobile device is plainly not "listening" for a timestamp. Rather, Kahn is simply receiving a requested file. This routine has nothing to do with enabling event notifications or configuring the phone to listen to the event notification.

Yet still further, Petitioner argues that: "Hiroishi's phone 40, which is a master device, is also configured to listen for responses to Bluetooth polling requests." *See* Petition (Paper 2) at 44. First, none of the terms "master," "master device," "poll," or "polling" appear anywhere in Hiroishi. Second, the concept of master-slave polling in the Bluetooth Specification has to do with the lower baseband layer 2 specification, and has nothing to do with "new data" at the much higher mobile Application Layer. *See* Bluetooth Specification (Exh. 1019) at 332 and 957.

Finally, Petitioner argues that the simple act of displaying the thumbnails satisfies the recited step of "processing the event notification." *See* Petition (Paper 2) at 45. This argument is nonsensical.

3. Kahn WMTP Is Not Same As HTTP

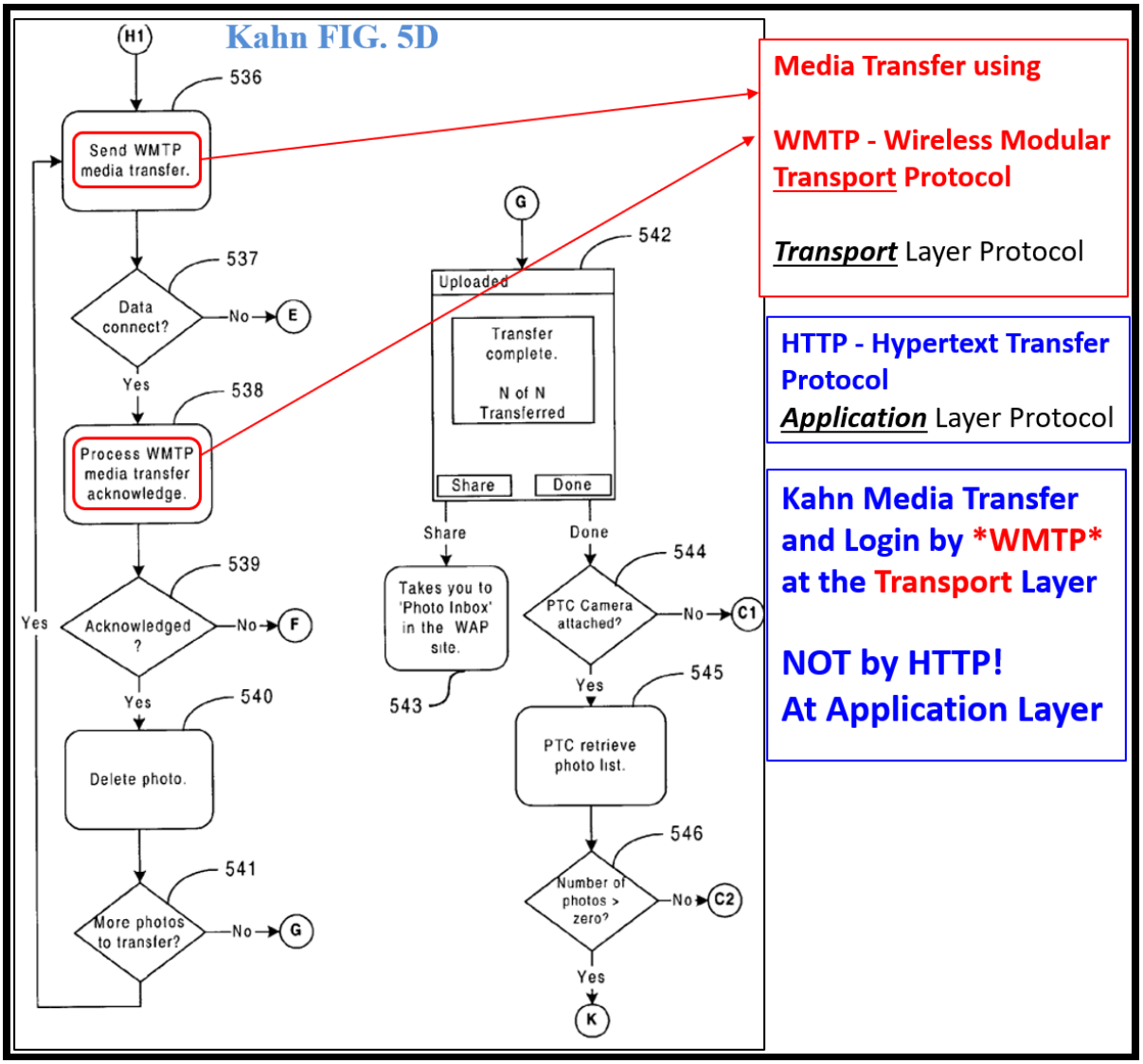
In its Petition, and specifically with respect to Ground 1, Petitioner relies on Kahn for its disclosure of HTTP. *See* Petition (Paper 2) at 49-50 ("(Hiroishi's phone program modified as taught by Kahn) is configured to use HTTP to upload the received new-data and the user authentication credential"); *see also id.* at 50-51 ("Kahn discloses that, "to communicate with the image management server 330, the host device [phone] 320 establishes an Internet Cellular connection Internet connection to the server, for example, using HTTP protocol."). Petitioner fails to recognize that Kahn actually uses *WMTP* for media upload and login – *not HTTP*.

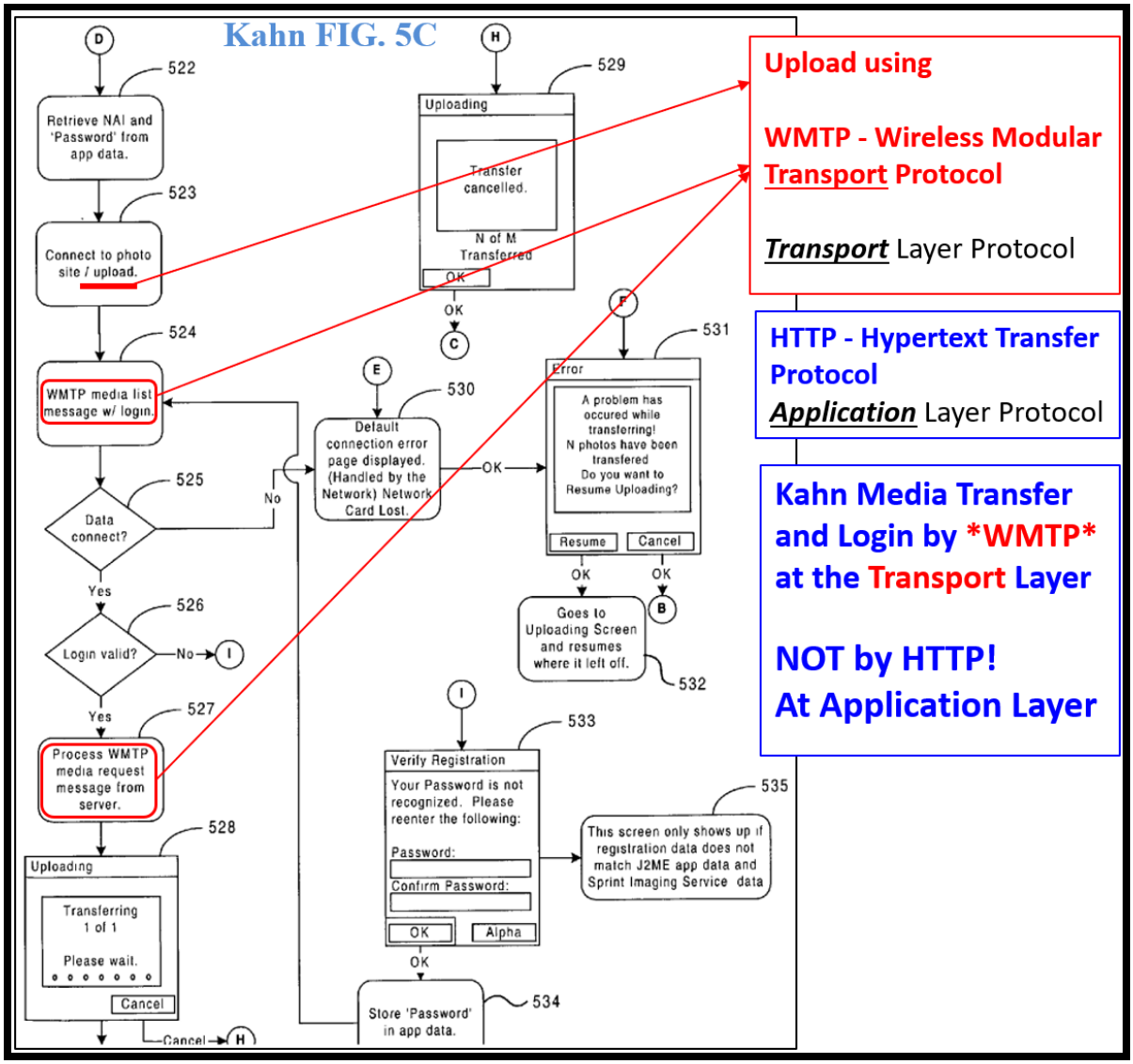
The Wireless Modular Transport Protocol ("WMTP") is a Transport Layer protocol, whereas Hypertext Transfer Protocol ("HTTP") is an Application Layer protocol. The disclosure WMTP in Kahn (the protocol used for data upload and login in that reference) is plainly a transport layer protocol, and such cannot be reasonably

viewed as a use of HTTP (an application layer protocol) for new-data. This fact is well established:

> **Abstract:**
> A new modular transport layer protocol for wireless sensor networks (WSNs) is proposed: WMTP - Wireless Modular Transport Protocol. This protocol not only allows the simultaneous use of all the main features commonly found in WSN transport protocols, namely congestion-control, fairness, and reliability, but also does so in a modular fashion. This way, the application layer can choose to use exactly the features that it requires. Additionally, WMTP also provides a set of uncommon features such as throttling, flow-control, transport layer quality- of-service, and optional integration with service-discovery. Focusing specifically on the fairness feature, experimental results show that the network resources are appropriately divided whether a simple fairness semantic is used, or in the presence of weighted differentiation. Additionally, this feature is shown to operate with minimal energy cost, as the protocol overhead is less than 10%.

See https://ieeexplore.ieee.org/document/4689157. The significance of this cannot be understated, as it illustrates the fact that the disclosure of Kahn could not possibly render the approach of the Challenged Claims obvious.


Kahn FIG. 5D
H1
536
Send WMTP media transfer.
537
Data connect?
No
E
Yes
538
Process WMTP media transfer acknowledge.
539
Acknowledged ?
No
F
Yes
Yes
540
Delete photo.
541
More photos to transfer?
No
G
G
542
Uploaded
Transfer complete.
N of N Transferred
Share
Done
Share
Done
Takes you to 'Photo Inbox' in the WAP site.
543
544
PTC Camera attached?
No
C1
Yes
545
PTC retrieve photo list.
546
Number of photos > zero?
No
C2
Yes
K
Media Transfer using
WMTP - Wireless Modular Transport Protocol
Transport Layer Protocol
HTTP - Hypertext Transfer Protocol
Application Layer Protocol
Kahn Media Transfer and Login by *WMTP* at the Transport Layer
NOT by HTTP!
At Application Layer



The images above are an annotated set of Kahn Figures 5C and 5D. Again, Kahn plainly teaches an implementation of WMTP, which is a transport layer protocol. Under no circumstance would such transport layer media transfer be

equivalent or instructive, in any respect, to HTTP transfer at the application layer (as in the Challenged Claims). Certainly, Petitioner makes no showing sufficient to compel the conclusion that a POSITA would have been motivated to make such fundamental and drastic modification to Kahn. Indeed, it is only through improper hindsight reasoning does Petitioner assemble these inapposite disclosures.

To 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). *See* Kahn (Exh. 1017) at [0056] and [0063]. Nevertheless, with respect to media transfer and login, Kahn plainly teaches the *exclusive use of WMTP*. *See* Kahn (Exh. 1017) at Figs. 5C and 5D. To reiterate, WMTP and HTTP are two very different protocols and are also at different layers of the OSI stack. There can be *no* confusion over the fact that Kahn is teaching to any and all POSITAs and it is not an HTTP-based media transfer. As such, and to the extent a POSITA would have been inclined to assemble a Kahn combination at all, he or she would base the resulting apparatus on the use of WMTP for media transfer as expressly illustrated by Kahn, and would not incorporate HTTP (an Application Layer Protocol).

4. Pairing and Cryptographic Authentication are Non-Obvious

Petitioner's convoluted proposed combination of Hiroishi with all of Khan, Endsley, and Bluetooth necessarily fails. Contrary to Petitioner's arguments, there is zero evidence upon which to conclude that a POSITA would have elected to use pairing and cryptographic authentication from among the countless possible combinations available under the Bluetooth standard. As noted above, the Bluetooth specification comprises over 1400 pages detailing many different technical options, as shown in the figure below:

Bluetooth Pairing, Authentication and Encryption are Distinct Issues and Each is *Optional* NOT Required or MUST!

BLUETOOTH SPECIFICATION Version 2.1 + EDR [vol 0] page 19 of 74

Bluetooth

2.1 Remote Name Request 685
2.2 One-time Inquiry 687
2.3 Periodic Inquiry 689
3 ACL Connection Establishment and Detachment 691
3.1 Connection Setup 692
4 Optional Activities After ACL Connection Establishment 699
4.1 Authentication Requested 699
4.2 Simple Pairing Message Sequence Charts 700
4.3 Link Supervision Timeout Changed Event 713
4.4 Set Connection Encryption 714
4.5 Change Connection Link Key 715
4.6 Change Connection Link Key with Encryption Pause and Resume 715
4.7 Master Link Key 717
4.8 Read Remote Supported Features 719
4.9 Read Remote Extended Features 719
4.10 Read Clock Offset 720
4.11 Role Switch on an Encrypted Link using Encryption Pause and Resume 720
4.12 Refreshing Encryption Keys 721
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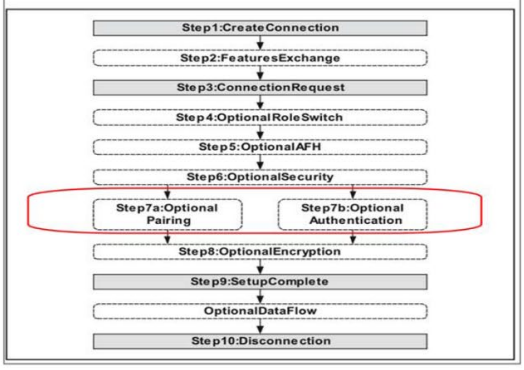
Message Sequence Charts

Bluetooth

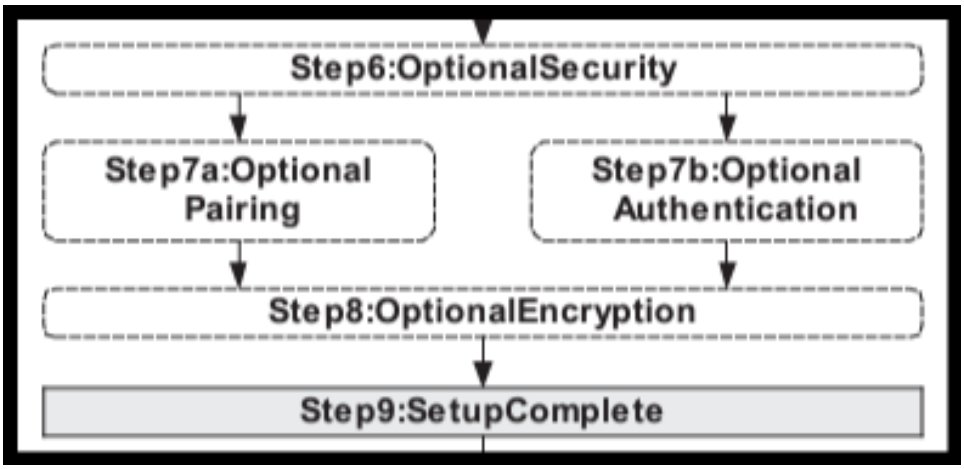
3 ACL CONNECTION ESTABLISHMENT AND DETACHMENT

A flow diagram of the establishment and detachment of a connection between two devices is shown in Figure 3.1 on page 691. The process is illustrated in 9 distinct steps. A number of these steps may be optionally performed, such as authentication and encryption. Some steps are required, such as the Connection Request and Setup Complete steps. The steps in the overview diagram directly relate to the steps in the following message sequence charts.



See Bluetooth Specification (Exh. 1019) at 19 and 861 (detailing "Optional Activities"). By way of example, the Bluetooth specification suggests *fifteen* different options for simply establishing a Bluetooth connection between two devices. *See id.*. In turn, those fifteen options can be combined into literally tens of thousands of possible unique combinations. With so many combinations possible to a POSITA, Petitioner has not, and cannot, establish the premise that "cryptographic authentication" would have been obvious.

Further to this point, Petitioner suggests that: "Hiroishi-Kahn-Endsley-Bluetooth renders [pairing and cryptographic authentication] obvious," because "paired" and "cryptographically authenticating the identity" are each "required by the Bluetooth protocol." *See* petition (Paper 2) at 35. This statement is categorically false, inasmuch as *both* are strictly and expressly optional (*not required*). *See, e.g.,* Bluetooth Specification (Exh. 1019) at 861:



Still further, Petitioner's suggestion that Bluetooth "pairing" was commonplace or obvious has no basis in fact. As set forth in the Bluetooth specification, the process of "pairing" was optionally practiced and optionally supported:

Bluetooth Pairing is Optionally Practiced and Optionally Supported

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See Bluetooth Specification (Exh. 1019) at 15-16. Per Bluetooth, there was *no need and no express requirement* for two Bluetooth-enabled devices to be "paired" (as defined by Bluetooth protocols) either prior to, or during the process of, transferring images or messages. Indeed, *both pairing and authentication are and were purely optional features*. As such, many "Bluetooth devices" did not even support pairing.

For this reason, and as illustrated above, Bluetooth 2.1 + EDR specifically provided error codes for the common situation when one device attempts to pair with another that does not allow pairing. *See* Bluetooth Specification (Exh. 1019) at 15-16 (providing: (i) Pairing Not Allowed (0X18); and (ii) Simple Pairing Not Supported (0X37)). Patent Owner suggests that, as discussed above, a POSITA would not have been inclined to implement Bluetooth for the digital image upload in 2007 and, even if it were considered, the POSITA would have naturally designed in accordance with the Bluetooth Basic Image Profile ("BIP") for image pull or push, which at the time specified an *unpaired and unauthenticated* connection. Of course, Petitioner fails to justify why a POSITA would have decided to design *against* the clear BIP Guidelines and, instead, choose: (i) optional pairing; (ii) optional authentication; (iii) in that order; and (iv) why both?

Patent Owner suggests that, rather than proceeding *against* the Bluetooth standard configurations, a POSITA would have naturally and reasonably designed in accordance with the profiles of the Bluetooth standard. Again, the most pertinent Bluetooth standard profile is called "BIP," a standard that does *not* require either "pairing" or "cryptographic authentication" for transferring images. Only through

Petitioner's hindsight reasoning would a POSITA move forward in a manner so contrary to the Bluetooth standard.

Further to this point, in order to derive the benefits of "secure transfer of images," a POSITA in 2007 would have used the default options and would have naturally followed the Basic Image Profile (BIP) guidelines for image transfer. *See* BIP Specification (Exh. 2015) at 15-17. As defined, BIP did *not* recommend Pairing or Authentication for the Image Pull or Image Push features. Indeed, the BIP Specification expressly states that: "In the following sequences, with the *exception of Automatic Archive*, pairing can be performed as necessary and is left to the implement's discretion." *See id.* at 16. The Specification continues: "In the case of Automatic Archive, it is highly recommended that pairing be a prerequisite to the use of that feature." *See id.* In this context, Automatic Archive would typically download all existing images from the digital camera to the cellular phone for backup purposes. Even for the Automatic Archive scenario, the BIP Specification *did not recommend Authentication. See id.*

The fact that different features had different security recommendations defined in the BIP Specification demonstrates that the authors of BIP considered

security requirements on a feature-by-feature basis. The recommendation as to whether or not Pairing or Authentication should be recommended for each feature was an informed decision made by the authors of the BIP Specification. After considering the options, the authors of the BIP Specification did *not* recommend Pairing or Authentication for the Image Pull or Image Push features. It is important to recognize that a POSITA would look to the BIP Specification for guidance on how to implement pulling or pushing images from a digital camera to a cellular phone, and would have appreciated that the BIP Specification did not recommend either Pairing or Authentication. Again, a POSITA would have been highly inclined to comply with the default modes as advised by the BIP Specification; namely, unpaired, encrypted, unauthenticated, and unauthorized.

Moreover, and with respect to Petitioner's reliance on Bluetooth pairing taking place prior to data capture, Patent Owner points out that the camera use case as taught by the BIP Specification that actually uses Pairing (*i.e.,* the Archive feature), required the *opposite* in terms of timing and order of operations when compared to the sequence of the Challenged Claims. As defined, the Automatic

Archive feature would have downloaded all the existing images from the digital camera to the cellular phone for backup purposes. Exh. 2015 at 16.

In sum, as of 2007, a POSITA would not have deviated from default Bluetooth behaviours taught by the BIP Specification, and Petitioner fails to convincingly establish otherwise.

G. Ground Two Fails

Petitioner argues that the combination of Singh129 with Singh906 renders each of Challenged Claims 1-10 obvious. *See* Petition (Paper 2) at 1. As shown below, Petitioner's arguments with respect to the four independent Challenged Claims (1, 4, 7, and 9) each fail and, as such, all of Petitioner's Ground 2 arguments necessarily fail.

The foundation of Petitioner's Ground Two does not withstand scrutiny, inasmuch as the primary cited "prior art" (Singh129) does not qualify as such. Of course, as discussed in detail above, the evidence plainly establishes the fact that the inventions as claimed in the '121 Patent are fully entitled to the earliest priority date of the 2007 '202 Provisional Application. Those arguments will not be repeated again here, but are incorporated by reference and reiterated.

Further, as set forth plainly on the face of the '121 Patent, the priority claim traces back through seven *continuation applications* (which, by definition, offer no "new matter") to the original '202 Provisional Application (as filed December 28, 2007). *See* '121 Patent (Exh. 1005) at "Related U.S. Application Data." Of course, under 35 U.S.C. §120, such provisional priority claiming is entirely proper, and provides unquestionable right of priority to the earliest effective filing data of the original Provisional. It goes without saying that black letter law establishes the *exact same* priority date for both the '121 Patent and Singh129, which is in the same unbroken family tree as recited on the face of the '121 Patent. *See* '121 Patent (Exh. 1005) at "Related U.S. Application Data" (listing "Application No. 12/333,303, filed on Dec. 11, 2008, now Pat. No. 8,392,591" [published as Singh129]). Because Singh129 is a parent to the '121 Patent, and because no new matter was added in any intervening application, it cannot be cited as prior art.

V. CONCLUSION

For the reasons set forth above, the Board should deny institution under *Fintiv* and in view of the secondary considerations relating to Petitioner. Further, and in the alternative, Petitioner TikTok fails to demonstrate a reasonable likelihood that

any Challenged Claim is unpatentable over the cited art combinations. Indeed, there exist multiple independent grounds upon which the Board should deny TikTok's Petition, inasmuch as the cited art collectively fails to teach every limitation of the invention as claimed. Accordingly, Patent Owner requests that the Board reject TikTok's Petition and deny institution.

//

Date: July 5, 2024

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CERTIFICATION OF WORD COUNT

The undersigned hereby certifies that the foregoing complies with the type-volume limitations of 37 C.F.R. § 42.24 and contains 12,578 words, excluding those portions exempted under 37 C.F.R. § 42.24(a)(1).

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