

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TIKTOK, INC.,

Petitioner,

v.

CELLSPIN SOFT, INC.,

Patent Owner

IPR2024-00767

U.S. Patent No. 11,659,381 B2

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

PATENT OWNER RESPONSE

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TABLE OF EXHIBITS

Number	Description
2001	Declaration of Pavan M. Gajendragad
2002	Petitioner's District Court Disclosures
2003	Cohen
2004	Harrison
2005	Joint Claim Construction Statement
2006	2007 CCNA Cisco Certified Network Association Study Guide
2007	WAPARCH
2008	MMS 1.0 Specification Excerpts
2009	IrDA - OBEX Version 1.3
2010	Book Excerpts
2011	'030 File Wrapper
2012	Book Excerpts
2013	'766 File Wrapper
2014	'121 Patent Notice of Allowance
2015	'381 Patent Notice of Allowance
2016	2003 Bluetooth Specification, Version 1.1
2017	Website Excerpts
2018	MIT Article
2019	Wikipedia Page
2020	Oracle Document

2021	Wikipedia Page
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I. INTRODUCTION

Petitioner TikTok fails to demonstrate that any of Challenged Claims 1-16 of United States Patent No. 11,659,381 B2 (“the ’381 Patent”) is unpatentable over the cited art. Indeed, there exist multiple independent grounds upon which the Board should hold the Challenged Claims as non-obvious and patentable over the cited art, inasmuch as the cited art collectively fails to teach every limitation of the invention as claimed.

More specifically, and among other deficiencies, the cited art collectively fails to disclose at least the following: (i) pairing, (ii) paired connection maintained on a continuous basis, (iii) cryptographic authentication, (iv) signal to notify, (v) event notifications, (vi) creating an object, (vii) sending and object, (viii) listening for signal to notify in an object, (ix) polling for new data, (x) using HTTP to send data along with user identifier, (xi) user profile, and (xii) user profile based advertising in the mobile application. Moreover, certain of the proposed combinations suggested by Petitioner are unworkable and incompatible, thus negating any likelihood that a POSITA would have made such combinations. Accordingly, Patent Owner requests that the Board hold that the Challenged Claims are patentable over the art cited by the Petitioner.

II. 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).

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); *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). “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)). 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).

III. CLAIM CONSTRUCTION

The District Court in this matter is in the process of carrying out its claim construction role, and both parties have provided specific constructions to many terms in the claims of the Asserted Patents. Still further, the parties have exchanged claim construction of key terms as required by the local rules of the district court. In the pending seven IPRs, Petitioner has advanced broad interpretations for all terms of all Asserted Patents, and Petitioner has not requested the construction of any specific term. Below is an example text from the IPR2024-00768 Petition at page 7 (similar text is in all seven Petitions):

IV. CLAIM CONSTRUCTION

All claim terms should be construed according to the *Phillips* standard.

Phillips v. AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005); 37 C.F.R. § 42.100. Based on the well-established principal that “claim terms need only be construed to the extent necessary to resolve the controversy,” no express constructions are required to institute review and find the Challenged Claims unpatentable. *Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011).

Meanwhile, Petitioner is seeking to secure narrow constructions of ***one hundred plus claim terms*** in the District Court. Exhibit 2002 (Petitioner’s Patent L.R. 4-1, 4-2 and 4-3 Disclosures). This Board should not allow Petitioner to capitalize on its inconsistent positions, and to potentially shield them from

simultaneous scrutiny by the Federal Circuit. The Board should not allow the creation of unbalanced playing field and should adopt the same claim constructions as are being advanced by the Petitioner at the District Court (and as generally agreed by Patent Owner). Since Nov 13 2018, PTAB has since adopted the claim construction analysis that follow the principles articulated in *Phillips*, 415 F.3d. This the same as what is required at the US District Courts. In patent law, the principle that claim terms should be construed consistently for both invalidity and infringement is well-established. Just recently Federal Circuit again emphasized that point in *01 Communique Lab., Inc. v. Citrix Sys.*, No. 2017-1869, 2018 U.S. App. LEXIS 10614 (Fed. Cir. Apr. 26, 2018)

“Claim terms must be “construed the same way for both invalidity and infringement.” *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1330 (Fed. Cir. 2003); see *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1351 (Fed. Cir. 2001) (“A patent may not, like a nose of wax, be twisted one way to avoid anticipation and another to find infringement.” (citations and internal quotation marks omitted)).”

The District Court trial is two months **before** the nominal date for issuance of a Final Written Decision here. Given that both the cases will almost surely be appealed, the Federal Circuit should be able to simultaneously scrutinize the claims

for infringement and invalidity using the same claim construction and not the inconsistent positions taken by Petitioner.

These actions (inconsistent claim construction positions) 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. Such interests have the goal of creating an unbalanced playing field with foreigners. *See* Exhibit 2003 (Cohen) and Exhibit 2004 (Harrison).

If the Board applies claim construction inconsistently with the ones adopted by the District Court, the Federal Circuit would have to resolve these issues for many terms. Petitioner has taken a drastically different approach regarding claim construction for all Asserted Patents before this Board as compared with its positions in the District Court. Here, Petitioner said NO construction is required of any claim term in any of the seven patents.

On December 20, 2024, the parties filed required disclosures with the District Court concerning claim construction. Below are the key claim construction terms that parties have agreed to (Partial Agreed Construction) and there are some terms that are still at issue in the District Court for the ‘766, ‘121, ‘381, and ‘030 Patents (*see* Joint Claim Construction and Prehearing Statement, Exhibit 2005):

Terms	[Partial] Agreed Constructions
“Bluetooth enabled data capture device”	“separate and apart from the mobile device and has the ability to send and/or receive Bluetooth wireless messages”
“short-range wireless enabled data capture device”	“separate and apart from the short-range wireless enabled cellular phone and has the ability to send and receive short-range wireless messages”
“paired”	“in the condition of having an exchanged link key (either before connection establishment was requested or during connecting phase)”
“after the paired secure Bluetooth connection is established” / “after establishing a paired Bluetooth connection” “after establishing the short-range paired wireless connection” / “after the short-range paired wireless connection is established”	“after the paired connection is established and maintained on a continuous basis between the Bluetooth enabled data capture device and the Bluetooth enabled mobile device” / “after the paired connection is established and maintained on a continuous basis between the Bluetooth enabled data capture device and the Bluetooth enabled cellular phone” “after the paired connection is established and maintained on a continuous basis between the short-range wireless enabled data capture device and the short-range wireless enabled cellular phone”
“short-range paired wireless connection”	“in the condition of having an exchanged link key (either before connection establishment was requested or during connecting phase) between the short-range wireless enabled data capture device and the short-range wireless enabled cellular phone”
“cryptographically authenticating”	“verified as legitimate by use of encryption and decryption involving an algorithm”
“data signal	“ an indication of the presence of newly acquired

notification(s)”	data”
“poll” / “polling”	“checking status [of] on a predetermined basis,” where “predetermined” refers to programming that sets the frequency of the status checks (e.g., at set intervals, dynamic intervals, randomly, etc.)
“user authentication credential”	“data used to verify the identity of the user”

The earlier ‘127 IPR Petition was filed prior to November 13, 2018, and the Board there construed terms of the challenged claims using the so-called “broadest reasonable interpretation” in light of the specification (“BRI”). Of course, since then, the Board has adopted a claim construction procedure which follows the principles articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005). Thus, earlier decisions based on the BRI standard have no bearing on the present case, at least insofar as claim construction is concerned.

The term “after the paired secure Bluetooth connection is established,” as well as similar terms such as “after establishing the short range paired wireless connection” are NOT disputed in the Texas District Court. These terms have been previously construed (by the Northern District of California) to mean: “after the paired connection is established and maintained on a continuous basis.” *See* Exhibit 2022 at This proposed construction is fully supported by the opinions of Pavan M. Gajendragad. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 36.

Again, this construction has now been stipulated by the parties in the District Court.

In the Northern District of California, the Court found as follows:

“[P]rosecution disclaimer limits the term to maintaining continuous paired connections while new data is acquired in this case. During prosecution of the ‘794 Patent, Cellspin added the limitation in question in order to overcome prior art. The examiner rejected the unamended claims over a ‘Kennedy’ reference, which disclosed uploading new data in one of three ways: (1) automatically, upon sensing that the device is full, (2) manually, when the user decides to perform the transfer, or (3) in real-time, as soon as data is acquired. Cellspin argued that Kennedy did not disclose whether the connection is opened before or after the data acquisition and whether it is closed or kept open after data transfer. It later clarified that Kennedy took the conventional approach of disconnecting the paired connection after data transfer to save power, while the patent ‘took the opposing view,’ which is ‘to . . . maintain the BT paired connection on a continuous basis for the application’ and ‘not to disconnect the BT paired connection after the transfer of data.’ The reason for this approach was a belief ‘that having a constant connection would be the key to the overall improvement in the application architecture and responsiveness of the application.’ The Court finds that the above statements constitute clear and unambiguous disclaimer of paired connections that are not maintained on a continuous basis. *Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1359 (Fed. Cir. 2017). Cellspin had ‘unequivocally and unambiguously’ disavowed systems that fail to maintain a continuous paired connection, characterizing this feature as ‘key’ to the improvements of the invention, and cannot now interpret the claims to cover such systems. Moreover, **because the ‘794 Patent is related** to the other asserted patents, **the disclaimer extends to all** asserted patents having this limitation” (internal citations omitted).

In a footnote, the Court also noted: “Defendants point out, Cellspin made similar arguments related to a ‘permanent’ paired wireless connection during

prosecution of the ‘847 Patent, which further confirms the common understanding of this term in **all** patents.” Thus, the Court found that the disclaimer extended to ALL related patents because of *Microsoft Corp. v. MultiTech Sys., Inc.*, 357 F.3d 1340, 1349-50 (Fed. Cir. 2004).

Given the agreement between the parties in the ongoing District Court case and the earlier construction, the Board should construe the terms consistently as “after the paired connection is established and **maintained on a continuous basis.**”

Yet still further, the term “user profile” (as it relates to the ‘381 Patent) is also disputed by the parties in the District Court case, and that Cellspin proposes the following: “a collection of information associated with a user. It contains information such as their Username, Password, Email, Age, Gender, Country/Address.” This proposed construction is fully supported by the opinions of Pavan M. Gajendragad. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 56.

This construction is well-supported by the written description, which recites (at [0006]): “The user creates a user profile on the website of the publishing service.” At [0017] it recites: “The user 201 may also register on the publication virtual spaces 205 by creating a user profile at the publication virtual spaces 205.” At [0021] it recites: “targeted advertisements based on a user profile stored in the database 204a.” At [0025] it recites: “The user 201 may create an account

comprising the user profile and login information.” At [0034] it recites: “The database 204a of the publishing service 204 comprises user profiles.” At [0036] it recites: “Targeted advertisements based on the user profile.” *See* Gajendragad Declaration [Exhibit 2001] at ¶ 57.

It is further noted that in 2007 a “User Profile” database would have at least these fields, as evidenced by multiple books, articles and MIT papers (collectively as Exhibit 2017). *See* Gajendragad Declaration [Exhibit 2001] at ¶ 58; *see also* computer.howstuffworks.com/internet/social-networking/networks/myspace.htm:

Signing up for MySpace takes about two minutes. To register and create our basic **profile**, all we need to do is enter a few details on a form: name, e-mail address, password, country where we live, postal code (for United States, Canada and United Kingdom residents), gender and birth date. During the initial sign-up, we're also prompted to upload a photo and invite our friends to join.

Likewise, *see* “Myspace Maxed Out” Explode Your Popularity, Secure Your Privacy and Buzz Your Band on Facebook (2006) by Bottletree Books.

www.google.com/books/edition/Myspace_Maxed_Out/EPbSr4WZ-

[nkC?hl=en&gbpv=1&dq=myspace+profile+example&pg=PA71&printsec=frontcover](http://www.google.com/books/edition/Myspace_Maxed_Out/EPbSr4WZ-nkC?hl=en&gbpv=1&dq=myspace+profile+example&pg=PA71&printsec=frontcover)

Info Type	Info	Info Disclosed by MySpace	To Whom
Sign-Up	Email, First and Last Name, Password, Country, Postal Code, Gender, Birthdate, Age	Email, First Name, Gender, Age	MySpace Community
Profile	Photos, Personal Interests, Gender, Age, Education and Occupation	Photos, Personal Interests, Gender, Age, Education and Occupation	MySpace Community
Non-Personally Identifiable Info	IP Address, Profile Information, Aggregate User Data, and Browser Type	IP Address, Profile Information, Aggregate User Data, and Browser Type	Third Party Vendors to MySpace

Still further, *see* “MySpace Unraveled” What it is and how to Use it Safely (2006), by Larry Magid, Anne Collier:

2. Provide your email address, first and last name, date of birth, gender, country, and zip code.

Your email address and last name won't appear in your public profile automatically, but your first name, age, and location will unless you delete them later. (We'll show you how.)

3. Create a unique password with six or more characters, containing at least one number or punctuation character.

4. Agree to comply with basic site-security protocols and the terms of the site by checking the appropriate check box.

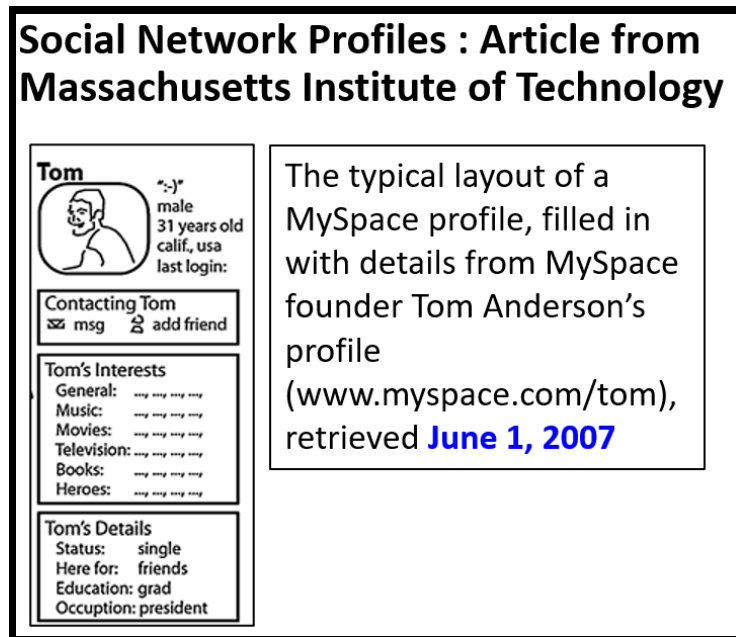
5. Enter the characters displayed in the Verification box.

You may have trouble deciphering the verification text, but if you get it wrong, MySpace will display a different one for

As of 2007, a POSITA had a good understanding on what “user profile” meant and contained. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 61. In 2007, Myspace was valued at \$12 billion and had more than 300 million registered users. *See* <https://en.wikipedia.org/wiki/Myspace>.

As a POSITA would have understood, a typical user profile in 2007 required: “a collection of information associated with a user. It contains information such as their Username, Password, Email, Age, Gender, Country/Address.” *See* Gajendragad Declaration [Exhibit 2001] at ¶ 62.

This is bolstered by the 2007 article, Social Network Profiles: Massachusetts Institute of Technology (at academic.oup.com/jcmc/article/13/1/252/4583067) (Exhibit 2018):



Similarly, *see* https://en.wikipedia.org/wiki/User_profile: “A user profile is a collection of settings and information associated with a user. It contains critical information that is used to identify an individual, such as their name, age, portrait photograph and individual characteristics such as knowledge or expertise.” *See* Exhibit 2019; *see also* Gajendragad Declaration [Exhibit 2001] at ¶¶ 63-64.

Still further, the Oracle paper entitled: “How to Build a User Profile” is very clear on what are the most basic attributes of a user profile. *See* Exhibit 2020; *see also* Gajendragad Declaration [Exhibit 2001] at ¶ 65; *see also* <https://www.oracle.com/technetwork/topics/ux/applications/user-profile-template-1884996.pdf>:

4. What attributes make up a user profile?

While each profile is different, these are some of the key characteristics in an enterprise profile:

- Demographic characteristics – age, gender, location

Again, and in view of the foregoing, a POSITA would have understood the term “user profile” in the manner proposed by Cellspin; namely: “a collection of information associated with a user. It contains information such as their Username, Password, Email, Age, Gender, Country/Address.” *See* Gajendragad Declaration [Exhibit 2001] at ¶ 66.

IV. GENERAL RESPONSE

None of the alleged prior art references would have been combined by a POSITA in the manner described by David Lett. Moreover, the various alleged prior art references and their combinations fail to teach many of the elements of the Challenged Claims, and in certain cases combinations actually lead to “unworkable” solutions, when compared with the inventions as claimed in the Challenged Claims. A POSITA would have had NO reasonable expectation of

success in implementing the combinations. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 68.

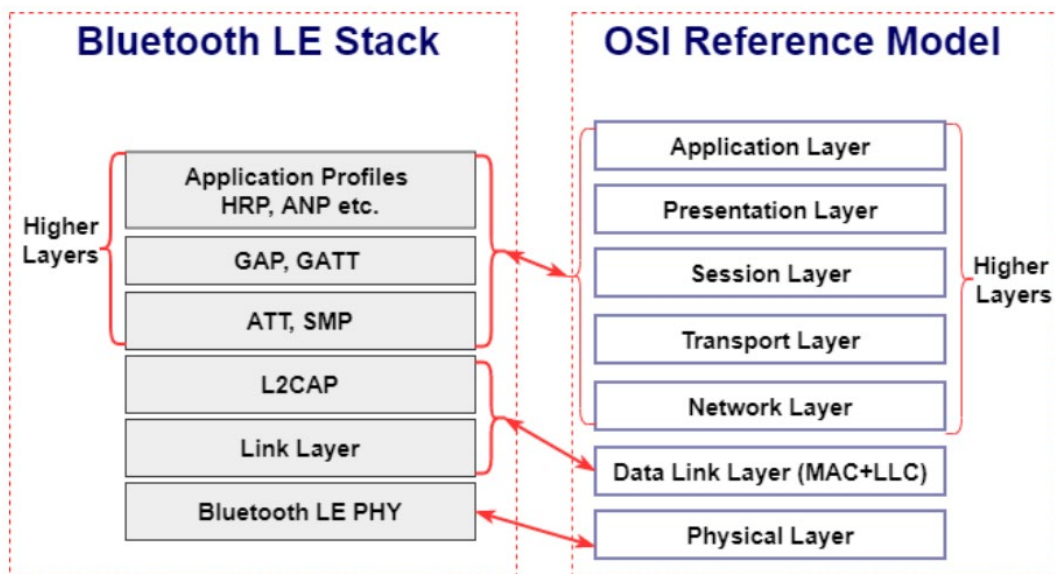
Further, none of the asserted combinations would have worked and would lead to unworkable implementation. A POSITA would have had NO reasonable expectation of success in implementing the combinations. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 69.

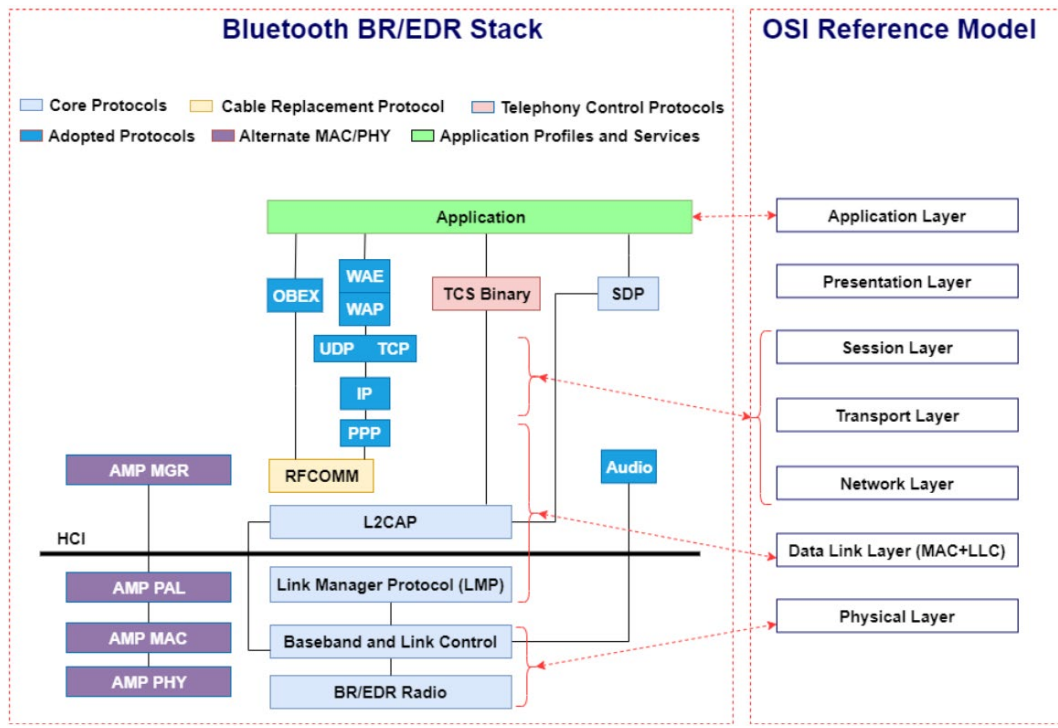
Still further, the specific references cited by Petitioner (alone or in combination) fail to teach many of the claim limitations, and a POSITA would not have been motivated to combine them in the first place. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 71. Moreover, and as discussed in greater detail below, there are a number of instances where the alleged prior art actually leads to unworkable solutions and implementation, when compared with the inventions as claimed. A POSITA would have had NO reasonable expectation of success in implementing the combinations. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 71.

A. Discussion of Prior Art Bluetooth

In order to understand the invention and the Challenged Claims and the prior art it is important to establish an industry standard and definition of certain terms in 2007.

It was known and understood that Bluetooth technology maps to the Open Systems Interconnection (OSI) model in specific ways (*see* Gajendragad Declaration [Exhibit 2001] at ¶ 76). Illustrated below are the Bluetooth protocol mapping to OSI stack Math works. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 77; *see also* www.mathworks.com/help/bluetooth/ug/bluetooth-protocol-stack.html





In the preceding figure, the Bluetooth protocol stack is shown along with the OSI reference model. There is one-to-one mapping at the physical layer (PHY). The OSI data link layer (DLL) maps to the Bluetooth LE logical link control and adaptation protocol (L2CAP) and link layer (LL). In the Bluetooth stack, the higher layers provide application layer services, device roles and modes, connection management, and security protocol. The functionality of the Bluetooth protocol stack is divided between three main layers: the Controller, the Host, and Application Profiles and Services. *See Gajendragad Declaration [Exhibit 2001] at ¶ 78.*

As would have been further understood by a POSITA, “Pairing” in Bluetooth is different from “Authentication” and both are different from

“Encryption.” As shown in the figure below [Exhibit TTI 1019, p. 19], there are 15 different optional activities after a Bluetooth connection is established, with Pairing, Authentication, and Encryption each being different optional activities. Also, as shown in Figure 3.1 in the v2.1+EDR Bluetooth Core Specification [Exhibit TTI 1019, p. 861] Pairing is different from Authentication and both of them are different from Encryption. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 79.

BLUETOOTH SPECIFICATION Version 2.1 + EDR [vol 0]		page 19 of 74
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All 15 are
Optional

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.

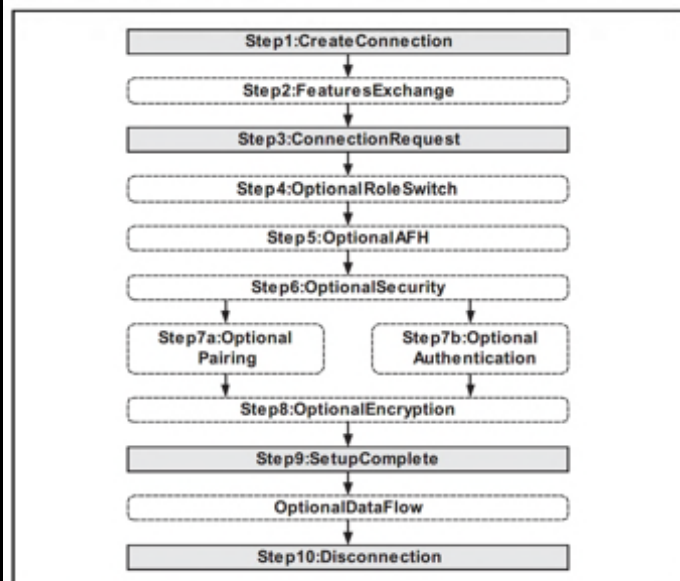


Figure 3.1: Overview diagram for connection setup.

For a POSITA these options are chosen for a connection depending on the requirements of the solution being implemented. In the Bluetooth family of specifications, Profile specifications are used to describe how to implement a particular use case or family of related use cases. A POSITA would listen to (and comply with) recommendations from the v2.1+EDR Bluetooth Core specification or the Bluetooth Basic Imaging Profile (BIP) specification. *See Gajendragad Declaration [Exhibit 2001] at ¶ 80.*

With 15 optional activities, there are tens of thousands of combinations of optional activities after ACL connection establishment. Even if all the options are

not mutually exclusive, the number of potential and available combinations is nevertheless extremely large. The Asserted Patents teach one particular combination from this large number of available options. It is only through hindsight reasoning that this one particular option is selected by Petitioner, although it clearly was not a simple or obvious design decision in 2007 when the original patent application was filed. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 81.

Moreover, Petitioner fails to mention the known 2007 pairing disadvantages, such as a poor user experience and battery drain. Even in 2024, there are widely-known “Bluetooth pairing battery issues” that usually refer to a situation where the Bluetooth device, such as headphones or a speaker, rapidly loses battery life when attempting to pair with another device, often due to factors like a weak battery, improper charging, or the Bluetooth connection itself being unstable or not optimized for low power usage. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 82.

As a POSITA would have understood, maintaining a Bluetooth connection requires power. For example, the Bluetooth radio in your phone consumes energy to stay connected to the earphones, which can lead to faster battery drain. In 2007, a common issue with Bluetooth pairing and battery life was that 2007 Bluetooth technology significantly drained the battery on devices due to its high-power

consumption, making it a major concern when pairing devices, especially on portable electronics like phones, as the constant search for connections could quickly deplete the battery. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 83.

Likewise, known Bluetooth battery issues in 2007 were (*see* Gajendragad Declaration [Exhibit 2001] at ¶ 84):

High power usage. Early Bluetooth versions used more power than newer iterations, leading to quicker battery drain when actively searching for or connected to other devices.

Limited battery capacity: Phones and other portable devices in 2007 generally had smaller battery capacities compared to today's standards, making the impact of Bluetooth usage even more noticeable.

Frequent pairing attempts: If you were trying to pair multiple Bluetooth devices or frequently switched between them, it could further exacerbate battery drain due to the continuous search process.

The best way to manage Bluetooth battery usage in 2007 was to turn off Bluetooth when not in use: This was the most effective way to conserve battery life as Bluetooth would only drain power when actively searching for or connected to a device. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 85.

As a POSITA would know, it was these battery issues which led to the development of Bluetooth Low Energy (BLE) because the primary goal of BLE

was to significantly reduce power consumption compared to traditional Bluetooth, making it ideal for battery-powered devices like wearables and sensors where long battery life is crucial; essentially, the need to extend battery life in small devices drove the creation of a more power-efficient Bluetooth standard like BLE. As compared to Classic 2007 Bluetooth 2.1, Bluetooth Low Energy was intended to provide considerably reduced power consumption and cost while maintaining a similar communication range. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 86; *see also* en.wikipedia.org/wiki/Bluetooth_Low_Energy

As of 2007, a POSITA would **NOT** have been inclined to create a system which required pairing devices because the Bluetooth specifications didn't require pairing. Even in 2007 (with Bluetooth 2.1 Security Mode 4) the default security requirement was an unauthenticated link key, which does not require the entry of a PIN, passkey or comparison of a passkey by the user. More specifically, the Bluetooth specification clearly states that: “[w]hen both devices support Secure Simple Pairing, GAP shall default to requiring an unauthenticated link key and enabling encryption.” (Exhibit TTI 1019, p. 1273 and 1286). *See* Gajendragad Declaration [Exhibit 2001] at ¶ 87.

It would have been these “shall default” Bluetooth options that would have provided for the data security benefits desired by POSITA in 2007. The default connection mode described in the v2.1+EDR Bluetooth core specification is for the

connection to be *unpaired, encrypted, unauthenticated and unauthorize*. Exhibit TTI 1019, p. 1273 and 1286. Without some other specific requirement in place for a connection to be paired, there is no reason that a POSITA would not choose the default connection (unencrypted, authenticated and/or authorized). *See* Gajendragad Declaration [Exhibit 2001] at ¶ 88.

In 2007, a POSITA would NOT choose to “maintain a paired connection on a continuous basis,” and Petitioner makes no showing otherwise. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 89. The claim construction the parties have already agreed upon at the District Court is “after the paired connection is established and maintained on a continuous basis.”

In 2007 A POSITA would have understood that the Basic Imaging Profile (BIP) describes all the Kahn, Hiroishi, Feinberg, and Endsley scenarios. However, BIP did not require a paired Bluetooth connection for all these scenarios. Rather, for the scenarios most in line with Kahn, Hiroishi, Feinberg, and Endsley (*i.e.* pull based or push based mage transfer), BIP was not recommending using a paired Bluetooth connection. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 90.

NONE of the cited references (Kahn, Hiroishi, Feinberg, Endsley) even mention the word “pair” or “pairing,” let alone the timing for pairing as recited in the Challenged Claims. Applications and systems would connect to Bluetooth and then disconnect after the job was done. The v2.1+EDR Bluetooth Core

Specification lists many optional activities, with Pairing and Authentication being only some of them, and neither were the default *for any scenarios*. Data Encryption between the two devices was the default option in 2007, not Pairing and not Authenticated. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 91.

It is apparent that Petitioner and David Lett are relying upon hindsight reasoning to suggest that a POSITA would NOT go with the Default option provided by the Bluetooth Standard of 2007. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 92. According to Petitioner and David Lett, a POSITA would NOT listen to the v2.1+EDR Bluetooth Core specification or NOT go with the recommendation provided by the Bluetooth Basic Imaging Profile (BIP) specification, and furthermore would NOT care about pairing disadvantages, such as a poor user experience and battery drain. Such hindsight is not warranted and does not reflect the thought process of a POSITA. Even today, a POSITA puts a lot of weight and follows the Bluetooth standards body recommendations. There is reason for the standard bodies to come up with default recommendation, because that is what the latest and best understanding of the problem and the solutions are at the time. To suggest that a POSITA would proceed in a manner that was not being recommended by any standard body is not supported and is unreasonable. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 92.

In *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157 (Fed. Cir. 2006), the Federal Circuit emphasized that the mere existence of *multiple options in the prior art does not automatically render an invention obvious*. Thousands of permutations and combinations in the Bluetooth specification do not provide a clear direction to combine the references in a way that leads to the claimed invention, and Petitioner makes no showing (absent hindsight) establishing a basis for a POSITA to actually select the combinations used in the Challenged Claims. *See also In re Kubin*, 561 F.3d 1351 (Fed. Cir. 2009) (same).

Similarly, in *Raytheon Technologies Corp. v. General Electric Co.*, 2021 U.S. App. LEXIS 10961 (Fed. Cir., Apr. 16, 2021), the Federal Circuit held that the relied-upon prior art failed to enable one of ordinary skill to make and use the claimed invention. This decision emphasizes that non-enabled prior art cannot be used to establish obviousness. Here, the 1400 page long Bluetooth Specification with thousands of options is a non-enabled prior art reference that does not provide sufficient information to enable a person of ordinary skill in the art to make and use the claimed invention.

V. SPECIFIC REBUTTAL TO ALLEGED OBVIOUSNESS COMBINATIONS

It is noted that Petitioner has not identified any alleged anticipatory references under 35 U.S.C. § 102. It has, however, identified a number of combinations which purportedly comprise invalidating disclosures under 35 U.S.C.

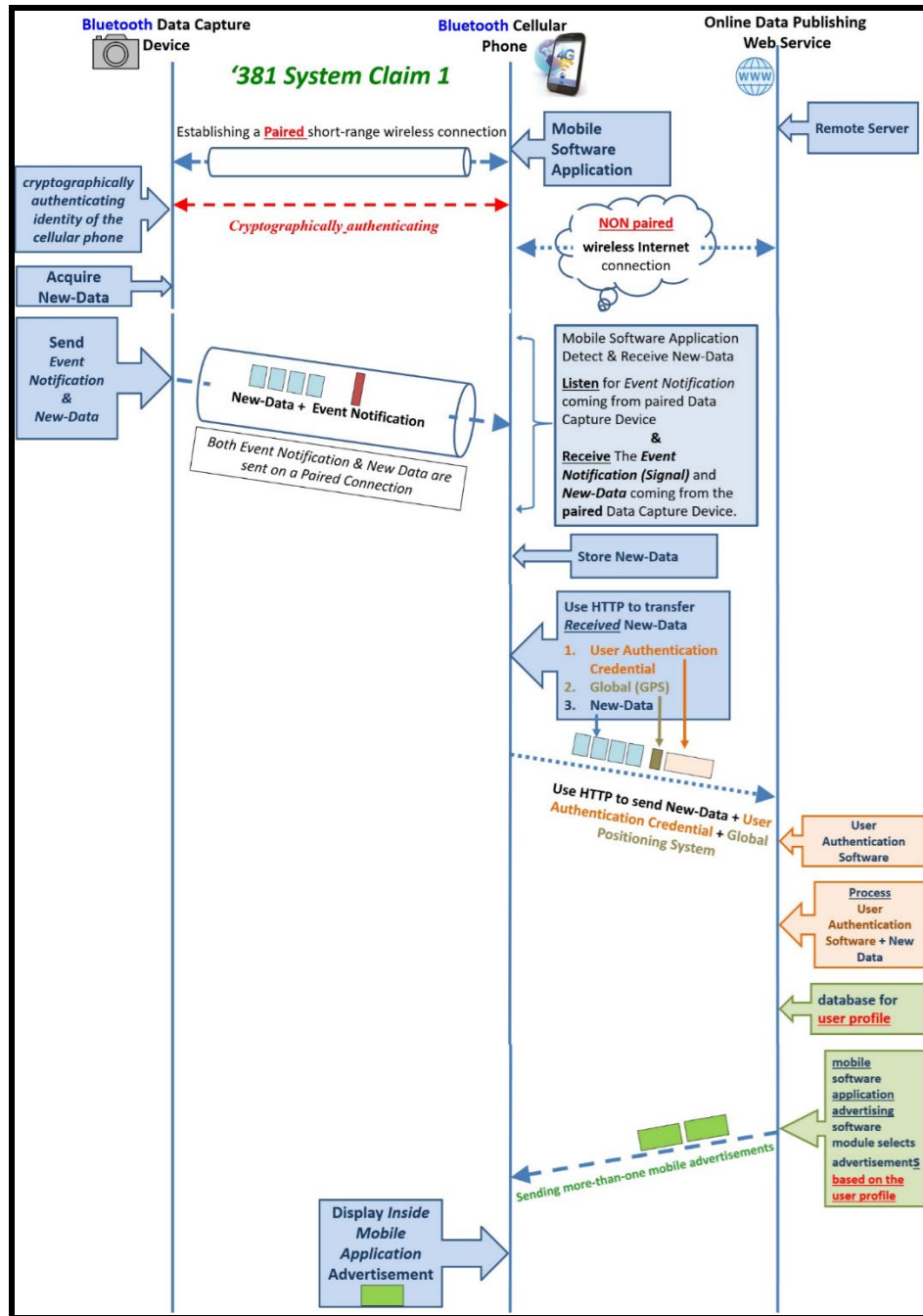
§ 103. These arguments are directly refuted by Mr. Gajendragad. *See* Gajendragad Declaration [Exhibit 2001] at ¶ 93.

A. Ground 1 Fails (Hiroishi, Kahn, and Bluetooth)

Petitioner and its expert suggest suggests that a POSITA would have been motivated to combine the teachings of Hiroishi in view of Kahn and Bluetooth in order to arrive at the inventions of the Challenged Claims. For a variety of reasons, Patent Owner disagrees.

With respect to teachings of Hiroishi, Kahn, and Bluetooth, David Lett provides a claim-by-claim articulation of his thoughts regarding how the Hiroishi in view of Kahn and Bluetooth reference renders the Challenged Claims obvious. Again, Patent Owner disagrees, and herein addresses the most glaring deficiencies in Petitioner's analysis. *See* Gajendragad [Exh. 2001] at ¶ 407.

As an initial point of reference, Patent Owner provides the following detailed flow diagram (prepared by Cellspin in an earlier filing), which accurately illustrates the connectivity and data flow as variably recited in the Challenged Claims (using Claim 1 of the '381 Patent as an example) (*see* Gajendragad [Exh. 2001] at ¶ 408):



The **first** glaring deficiency in Petitioner’s analysis is that (as discussed above), I understand the parties in the District Court have agreed to the constructions of the following key terms (see Gajendragad [Exh. 2001] at ¶ 409):

“after the paired secure Bluetooth connection is established” / “after establishing a paired Bluetooth connection” “after establishing the short-range paired wireless connection” / “after the short-range paired wireless connection is established”	“after the paired connection is established and maintained on a continuous basis between the Bluetooth enabled data capture device and the Bluetooth enabled mobile device” / “after the paired connection is established and maintained on a continuous basis between the Bluetooth enabled data capture device and the Bluetooth enabled cellular phone” “after the paired connection is established and maintained on a continuous basis between the short-range wireless enabled data capture device and the short-range wireless enabled cellular phone”
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Neither Hiroshi, Kahn or Bluetooth disclose a paired connection that is “established and maintained on a continuous basis.” *See* Gajendragad [Exh. 2001] at ¶ 410. As discussed above, the Board rejected that construction in its institution decision because of material presented to them on the record.

The Petitioner has not asserted anywhere in any of these 4 cases that the prior art discloses a “**paired connection is established and maintained on a continuous basis.**” *See* Gajendragad [Exh. 2001] at ¶ 411.

Indeed, NONE of the cited prior art (Kahn, Hiroishi, Feinberg, Endsley) even mention the word “pair” or “pairing,” let alone paired connection is “established and maintained on a continuous basis.” *See* Gajendragad [Exh. 2001] at ¶ 412.

As discussed in detail above, as of 2007 a POSITA would definitely NOT “maintain a paired connection on a continuous basis.” The agreed claim construction (with which I also agree) is “after the paired connection is established and maintained on a continuous basis.” See Gajendragad [Exh. 2001] at ¶ 413.

The **second** glaring deficiency in Petitioner’s analysis is that “pairing” is not a “must” for a Bluetooth connection as suggested by the Petitioner and its expert, and both Pairing and Cryptographic Authentication are Non-Obvious. See Gajendragad [Exh. 2001] at ¶ 414.

The Petition asserts that in Hiroishi: “For the mobile phone and the camera to communicate via Bluetooth, the mobile phone and the **camera must have been “paired,”** *but this is without any factual support for the “must” requirement.* Given that Bluetooth never says pairing is a default or pairing is required/must. Contrary to Davit Lett and Petitioner’s assertion the Bluetooth Specification is very clear that Pairing is not required for Bluetooth devices to communicate and Pairing is optional. See Gajendragad [Exh. 2001] at ¶ 415.

As noted and discussed in detail above, in Bluetooth “Pairing” is different from “Authentication” and both are different from “Encryption. As shown and discussed above, there are 15 different **optional** activities after a Bluetooth connection is established. Pairing, Authentication, and Encryption are different optional activities. Also, as shown in Figure 3.1 in the v2.1+EDR Bluetooth Core

Specification [Exhibit TTI 1019, p. 861] it again clearly shows that the Pairing is different from Authentication and both of them are different from Encryption. See Gajendragad [Exh. 2001] at ¶ 416.

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
4.13	Read Remote Version Information	722
4.14	QOS Setup.....	722
4.15	Switch Role	723

All 15 are
Optional

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.

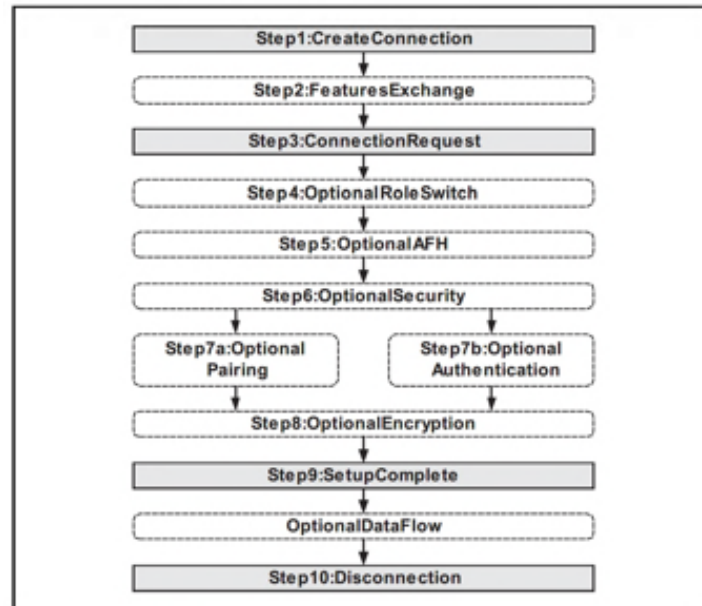


Figure 3.1: Overview diagram for connection setup.

For a POSITA, these options are chosen for a connection depending on the requirements of the solution being implemented. In the Bluetooth family of specifications, Profile specifications are used to describe how to implement a particular use case or family of related use cases. POSITA would listen to recommendations from the v2.1+EDR Bluetooth Core specification or the Bluetooth Basic Imaging Profile (BIP) specification. See Gajendragad [Exh. 2001] at ¶ 417.

Moreover, Hiroshi [0067] teaches one to follow the Bluetooth Standards:

“Therefore, the communication unit 49 of the mobile phone 40 and the

communication unit 59 of the digital camera 50 are configured so as to allow a communication **according to the standard of Bluetooth**, respectively.” For Petitioner to suggest otherwise is contrary to Hiroishi’s teaching. *See* Gajendragad [Exh. 2001] at ¶ 418.

Again, and as noted and discussed above, the Bluetooth specification clearly states twice that, “[w]hen both devices support Secure Simple Pairing, GAP shall default to requiring an unauthenticated link key and enabling encryption.” (Exhibit TTI 1019, p. 1273 and 1286) (*see also* Gajendragad [Exh. 2001] at ¶ 419).

This statement also means that NOT ALL Bluetooth devices supported pairing. (Conditional statement **when** both device). *See* Gajendragad [Exh. 2001] at ¶ 420.

As discussed above, as of 2007 a POSITA understood that the Basic Imaging Profile (BIP) describes all the Kahn, Hiroishi, Feinberg, Endsley scenarios. However, BIP did not require a paired Bluetooth connection for all these scenarios. For the scenarios most in line with Kahn, Hiroishi, Feinberg, Endsley scenarios, *i.e.* pull based or push based image transfer, BIP was not recommending using a paired Bluetooth connection. *See* Gajendragad [Exh. 2001] at ¶ 421.

NONE of the cited references (Kahn, Hiroishi, Feinberg, Endsley) even mention the word “pair” or “pairing,” let alone the timing for pairing as recited in the Challenged Claims. Applications and systems would connect to Bluetooth and

then disconnect after the job was done. The v2.1+EDR Bluetooth Core Specification lists many optional activities, with Pairing and Authentication being only some of them, and neither were the default *for any scenarios*. Data Encryption between the two devices was the default option in 2007, not Pairing and not Authenticated. See Gajendragad [Exh. 2001] at ¶ 422.

In *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157 (Fed. Cir. 2006), the Federal Circuit emphasized that the mere existence of *multiple options in the prior art does not automatically render an invention obvious*. Thousands of permutations and combinations in the Bluetooth specification do not provide a clear direction to combine the references in a way that leads to the claimed invention, and Petitioner makes no showing (absent hindsight) establishing a basis for a POSITA to actually select the combinations used in the Challenged Claims. See also *In re Kubin*, 561 F.3d 1351 (Fed. Cir. 2009) (same).

Similarly, in *Raytheon Technologies Corp. v. General Electric Co.*, 2021 U.S. App. LEXIS 10961 (Fed. Cir., Apr. 16, 2021), the Federal Circuit held that the relied-upon prior art failed to enable one of ordinary skill to make and use the claimed invention. This decision emphasizes that non-enabled prior art cannot be used to establish obviousness. Here, the 1400 page long Bluetooth Specification with thousands of options is a non-enabled prior art reference that does not provide

sufficient information to enable a person of ordinary skill in the art to make and use the claimed invention.

As discussed in detail above, Petitioner and David Lett are relying upon hindsight reasoning to suggest that a POSITA would NOT go with the Default option provided by the Bluetooth Standard of 2007. *See* Gajendragad [Exh. 2001] at ¶ 423. According to Petitioner and David Lett, a POSITA would NOT listen to the v2.1+EDR Bluetooth Core specification or NOT go with the recommendation provided by the Bluetooth Basic Imaging Profile (BIP) specification, and furthermore would NOT care about pairing disadvantages, such as a poor user experience and battery drain. Such hindsight is not warranted and does not reflect the thought process of a POSITA. Even today, a POSITA puts a lot of weight and follows the Bluetooth standards body recommendations. There is reason for the standard bodies to come up with default recommendation, because that is what the latest and best understanding of the problem and the solutions are at the time. To suggest that a POSITA would proceed in a manner that was not being recommended by any standard body is not supported and is unreasonable. *See* Gajendragad [Exh. 2001] at ¶ 423.

The **third** glaring deficiency in Petitioner's analysis is that none of Hiroshi or Kahn or Bluetooth support event notification for new data. *See* Gajendragad [Exh. 2001] at ¶ 424.

Petitioner asserts that the thumbnail sent in Hiroishi is an event notification: “POSITA would have also understood that the thumbnails of Hiroishi being sent to the phone from the camera constitute the signal representing the event notification.” *See* Gajendragad [Exh. 2001] at ¶ 425.

As noted and discussed above, the parties have agreed upon certain constructions in the District Court, including (*see* Gajendragad [Exh. 2001] at ¶ 426):

“data signal notification(s)”	“an indication of the presence of newly acquired data”
“poll” / “polling”	“checking status [of] on a predetermined basis,” where “predetermined” refers to programming that sets the frequency of the status checks (e.g., at set intervals, dynamic intervals, randomly, etc.)

In Hiroshi (at [0083]) it is clear that the camera receives an instruction/request from the mobile to send a thumbnail: “If no in Step 118, *i.e.*, when the instruction information received from the mobile phone 40 in Step 104 is not the thumbnail transmission instruction information, the process goes to Step 122.” *See* Gajendragad [Exh. 2001] at ¶ 427.

In Hiroishi Step 118, a mobile in a remote control mode sends an instruction request for a thumbnail to the camera, and the camera then responds by sending the requested thumbnail to the phone. It is simple request-response scenario. *See* Gajendragad [Exh. 2001] at ¶ 428.

As discussed in detail above, in software design there are two very *different* categories of application architectures. **Request driven and Event Driven.** See Gajendragad [Exh. 2001] at ¶ 429.

As noted and discussed in detail above, there are a number of important distinctions, with Request-Driven Architecture using a **synchronous** request-response model where a component directly asks for information from another *and waits for a response* before proceeding. Request-Driven is more suitable for traditional client-server interactions where a direct response is required. See Gajendragad [Exh. 2001] at ¶ 430.

An Event-Driven architecture communicates between components by publishing and reacting to events, essentially working **asynchronously**. Event-Driven architecture is better for real-time, loosely coupled systems that need to react to events as they occur. See Gajendragad [Exh. 2001] at ¶ 431.

Key Differences are: Communication Pattern for Event-Driven: Publishes/sends events that any interested component can subscribe/listen to and process/react to asynchronously. Communication Pattern for Request-Driven: Sends direct requests to a specific component and waits for a response. See Gajendragad [Exh. 2001] at ¶ 432.

Support for these assertions can be found in Exhibit 2010 that has disclosures from three different books: (i) 2003 Book, C# in a Nutshell; By Peter

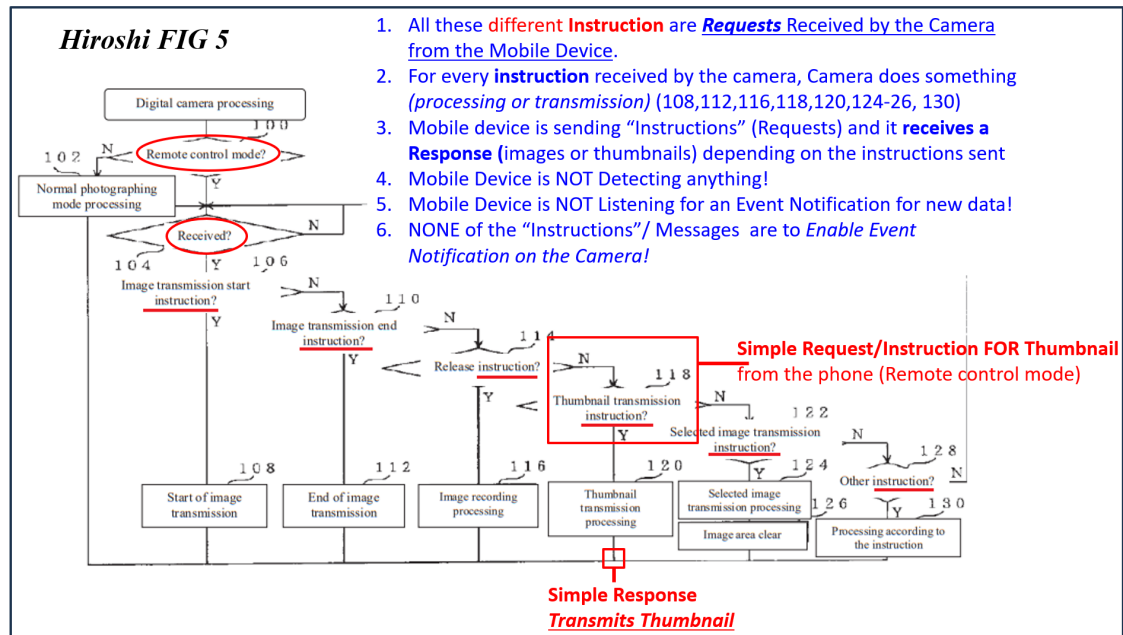
Drayton, Ben Albahari, Ted Neward; (ii) 2006 Book, Event-Based Programming, Taking Events to the Limit. By Ted Faison; and (iii) 2009 Book, C# 3.0 in a Nutshell, A Desktop Quick Reference, By Joseph Albahari, Ben Albahari. *See* Gajendragad [Exh. 2001] at ¶ 137 and ¶ 433.

The Challenged Claims require sending “Event Notification” to a listener without caring for a response from the listener, is completely different from sending a “request and waiting for a response” architecture in BOTH Hiroshi and Kahn. *See* Gajendragad [Exh. 2001] at ¶ 434.

The word “event” or “event notification” itself does not exist in either Kahn or Hiroshi! Both those state machines are based on request-response architecture. *See* Gajendragad [Exh. 2001] at ¶ 435.

For example, ALL instructions follow the same request-response pattern in Hiroshi and Khan. Phone sends an instruction to the camera and then waits for a response. Hiroshi “(0092) In Step 206, image transmission start **instruction** information **is transmitted** via the communication unit 49 **to the digital camera** 50. In response to this, the digital camera 50 performs Step 108 of the digital camera processing (also see FIG. 5) to start an image transmission processing. (0093) So, in the following Step 208, **[the phone] waits for** the reception of the digital image **data transmitted from the digital camera** 50,” *See* Gajendragad [Exh. 2001] at ¶ 436.

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. *See Gajendragad [Exh. 2001] at ¶ 437.*



As shown above, all the instruction in Hiroshi (108, 112, 116, 118, 120, 124, 126, and 130) follow a simple request-response architecture. For every instruction sent by the mobile device to the camera, the phone waits for the response back from the camera. After receiving the request from the phone, the camera does the processing and transmits the data back for the waiting phone. This is a classic synchronous request-response model, and has NOTHING to do with Event Notifications that are asynchronous in nature. *See Gajendragad [Exh. 2001] at ¶ 438.*

As discussed in detail above, and as a POSITA would have readily understood, a “request-response” model involves a client actively sending a specific request to a server and waiting for a direct response, while an “event notification” is a message sent out when a significant event occurs in a system, allowing any interested components to react asynchronously without needing to explicitly request the information; essentially, the key difference is that request-response is a direct, synchronous communication while event notification is a broadcast-like, asynchronous communication where the receiver decides when to act upon the information. Support for these assertions can be found in the Exhibit 2010. *See* Gajendragad [Exh. 2001] at ¶ 439.

In request-response, the client initiates communication by sending a request. In event notification, the system generates an event that triggers the notification. Request-response is synchronous, meaning the client waits for the server’s response before continuing. Event notification is asynchronous, meaning components can react to events at their own pace. Under that architecture, the mere receipt of a reply to an instruction/request in Hiroshi cannot be reasonably understood as an “event notification” as claimed. *See* Gajendragad [Exh. 2001] at ¶ 440.

As discussed in detail above, Petitioner initially relies on the *thumbnail transmission* as a purported event notification. According to Petitioner, the

thumbnail sent in Hiroshi is an event notification. *See* Gajendragad [Exh. 2001] at ¶ 441.

As discussed in detail above, Petitioner’s position is untenable, inasmuch as **there is nothing in Hiroishi that performs as an event notification.** Step 118 of receiving a request from the mobile to send a thumbnail and then camera sending the thumbnail to the mobile is NOT an event notification, in any sense of the word for POSITA. *See* Gajendragad [Exh. 2001] at ¶ 442.

As discussed in detail above, Petitioner is not realizing that in any application data model, you have to follow **either** request-response or event-based notification. Here the petitioner and its expert try to combine two orthogonal data architectures. You don’t “wait for a response” in an “event notification” architecture. Petitioner himself acknowledges and asserts that Hiroshi is “waiting for a response” just by that logic it cannot be event notification. Because in Event Notification there is NO waiting for a response. Simply put, Hiroishi has very little in common with the teachings and claims of the ‘381 Patent. *See* Gajendragad [Exh. 2001] at ¶ 443.

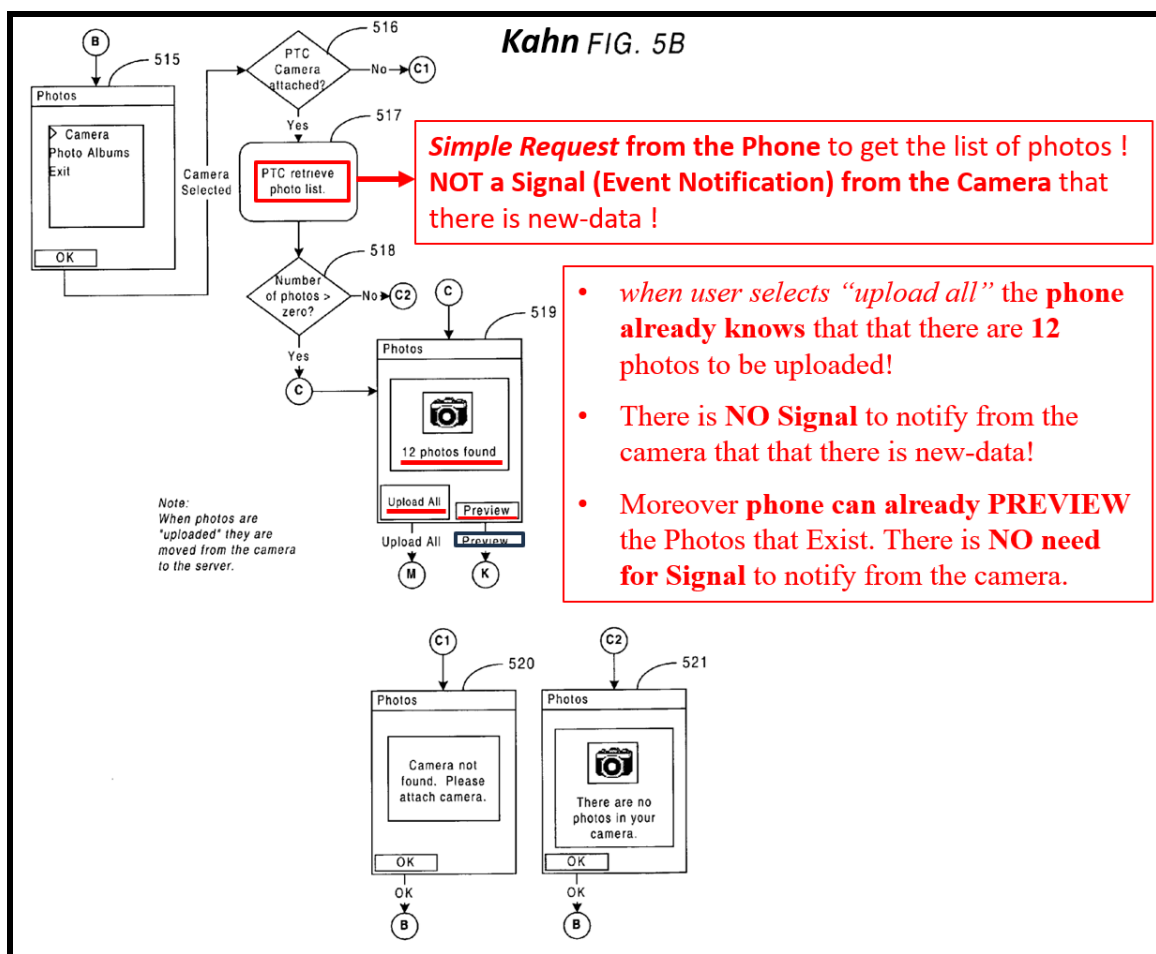
Petitioner next contends that “Kahn’s teaching of timestamp inclusion with image data underscores the broader concept of event notifications.” *See* Gajendragad [Exh. 2001] at ¶ 444.

Petitioner next contends that the disclosure in Kahn of a user upload selection satisfies the “event notification” aspects of the Challenged Claims: (“... in the alternative, Kahn teaches the program (applet) configured to listen for an event notification,” and “[in reference to] FIG. 5B, a POSITA would have understood that when the user selects upload/upload all, the phone would have listen for a signal from the camera”) and (“timestamp described in Kahn is used in the combination as an event notification because it is a signal that”) and (“the event notification (timestamp) and acquired new-data (full resolution images) are received by the mobile phone”). *See* Gajendragad [Exh. 2001] at ¶ 445.

The word “event” or “event notification” itself does not exist in either Kahn or Hiroshi, and both those state machines are based on request-response architecture. As noted above, a “request-response” model involves a client actively sending a specific request to a server and waiting for a direct response, while an “event notification” is a message sent out when a significant event occurs in a system, allowing any interested components to react *asynchronously* without needing to explicitly request the information. Support for these assertions can be found in the Exhibit 2010. *See* Gajendragad [Exh. 2001] at ¶ 446.

Kahn (like Hiroshi) is based on a request-response architecture model. In Khan Fig 5 B (517 step) there is a simple request from the phone to get the list of photos from the camera and then the phone get a response from the camera that

has the list of photos (12 photos found, as shown in the Fig 5B). It is a simple request-response model. There are no event notifications or signal to notify of any kind. There is NO listening for any events. The state machine is clear; every time the **phone** sends a “PTC retrieve the photo list” **request** to the camera, the **camera** sends a **response** to the mobile device with the list. See Gajendragad [Exh. 2001] at ¶ 447.



When the user selects the mobile GUI element “upload all” the phone uploads all 12 photos. There is NO signal to notify, there is NO phone listening for

any file timestamp. The word “listen” does not even exist in Kahn. *See* Gajendragad [Exh. 2001] at ¶ 448.

Next, Petitioner also argues that the “polling” described in Bluetooth is an example of an event notification: “In Bluetooth *polling*, the slave device (the camera) has to send an AR_ADDR message to the master device;” and identifying the “AR_ADDR message that the slave sends when it wants to send data,” and “During polling, the slave device must respond to a polling request”). The deficiencies in this argument are many, but (as discussed in detail above) 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*. *See* Gajendragad [Exh. 2001] at ¶ 449.

Again, and as noted above, the parties in the District Court have agreed to the following (*see* Gajendragad [Exh. 2001] at ¶450):

“data signal notification(s)”	“an indication of the presence of newly acquired data”
“poll” / “polling”	“checking status [of] on a predetermined basis,” where “predetermined” refers to programming that sets the frequency of the status checks (e.g., at set intervals, dynamic intervals, randomly, etc.)

As can be seen from the agreed definition of the terms, data event “notification” and “polling” are very different and the existence of one cannot satisfy the existence of another. The Bluetooth polling and AR_ADDR cannot

satisfy the event notification requirements of the claim. *See* Gajendragad [Exh. 2001] at ¶ 451.

The **fourth** glaring deficiency in Petitioner’s analysis is that Hiroshi and Bluetooth **do NOT disclose Polling** for new data as required by the claims. *See* Gajendragad [Exh. 2001] at ¶ 452.

The following have been agreed by the parties in the District Court (*see* Gajendragad [Exh. 2001] at ¶ 453):

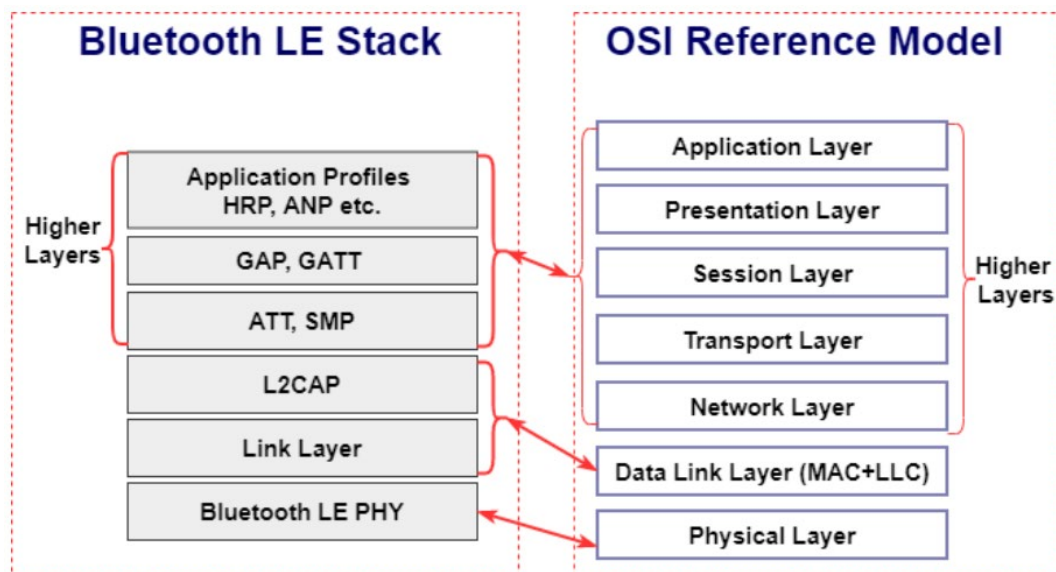
“poll” / “polling”	“checking status [of] on a predetermined basis,” where “predetermined” refers to programming that sets the frequency of the status checks (e.g., at set intervals, dynamic intervals, randomly, etc.)
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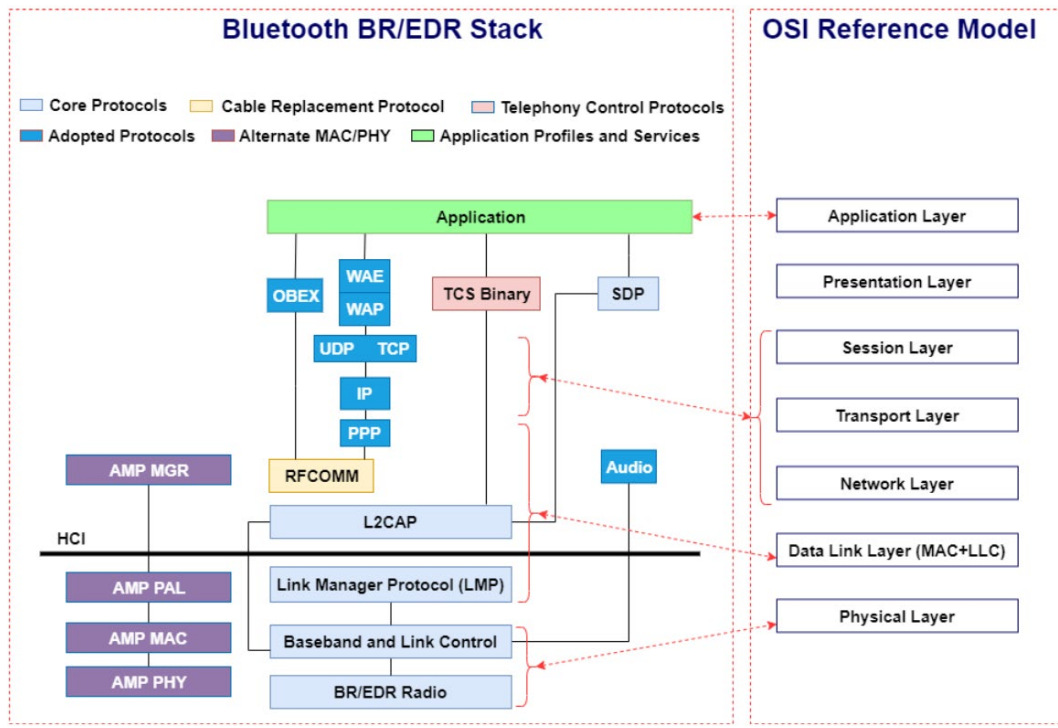
Petitioner argues that “Hiroishi teaches sending, from the program running on the mobile phone, a thumbnail instruction to the camera, which is a polling instruction.” (citing Ex. 1011 (Hiroishi) ¶¶ 81, 84, 102, Figs. 5–6). *See* Gajendragad [Exh. 2001] at ¶ 454.

But it is very clear that Hiroshi sending thumbnail instruction to the camera does not satisfy the required claim construction “**checking status [of] on a predetermined basis.**” Petitioner makes no effort to show that Hiroshi is *checking status* of anything. A request for sending the thumbnail is not checking status of anything. A request for sending the thumbnail is also not done on a “predetermined basis.” *See* Gajendragad [Exh. 2001] at ¶ 455.

Challenged Claim 12 recites: “said mobile software application for the Bluetooth enabled cellular phone configured to poll the Bluetooth enabled data capture device for new-data.” The claim language is very clear that the same mobile application that is doing HTTP is also doing the polling: “wherein polling comprises sending a request to the Bluetooth enabled data capture device to check if the acquired new-data is available for transfer.” For a POSITA, it is very clear that a mobile application that does HTTP based transfer and polling for new data at the application layer, it does not have direct access to any data link layer attributes. See Gajendragad [Exh. 2001] at ¶ 456.

Shown below are the Bluetooth protocol mapping to OSI stack Math works. See www.mathworks.com/help/bluetooth/ug/bluetooth-protocol-stack.html; see also Gajendragad [Exh. 2001] at ¶ 457:





In the preceding figure, the Bluetooth protocol stack is shown along with the OSI reference model. There is one-to-one mapping at the physical layer (PHY). The OSI data link layer (DLL) maps to the Bluetooth LE logical link control and adaptation protocol (L2CAP) and link layer (LL). In the Bluetooth stack, the higher layers provide application layer services, device roles and modes, connection management, and security protocol. The functionality of the Bluetooth protocol stack is divided between three main layers: the Controller, the Host, and Application Profiles and Services. *See Gajendragad [Exh. 2001] at ¶ 458.*

Again it is very clear to a POSITA from the OSI mapping of Bluetooth, that a mobile application that does HTTP based transfer at the application layer, it does

NOT have any direct access to any data link layer attributes of Bluetooth. *See* Gajendragad [Exh. 2001] at ¶ 459.

Petitioner relies on functionality of the ACL Data Link Layer in support of its “polling” argument: “Bluetooth teaches that ‘*to avoid collisions* on the ACL *logical transport*, a slave is only allowed to transmit when addressed by the LT_ADDR in the packet header in the preceding master-to-slave slot” and “Bluetooth uses *polling* to, *e.g.*, control slave transmissions to *avoid collisions* on the *transport channel*.” This position is unsupported and incorrect. The mobile application has NO DIRECT access to “ACL Logical Data Link Layer” and to “avoid collision” at the Packet Level. *See* Gajendragad [Exh. 2001] at ¶ 460.

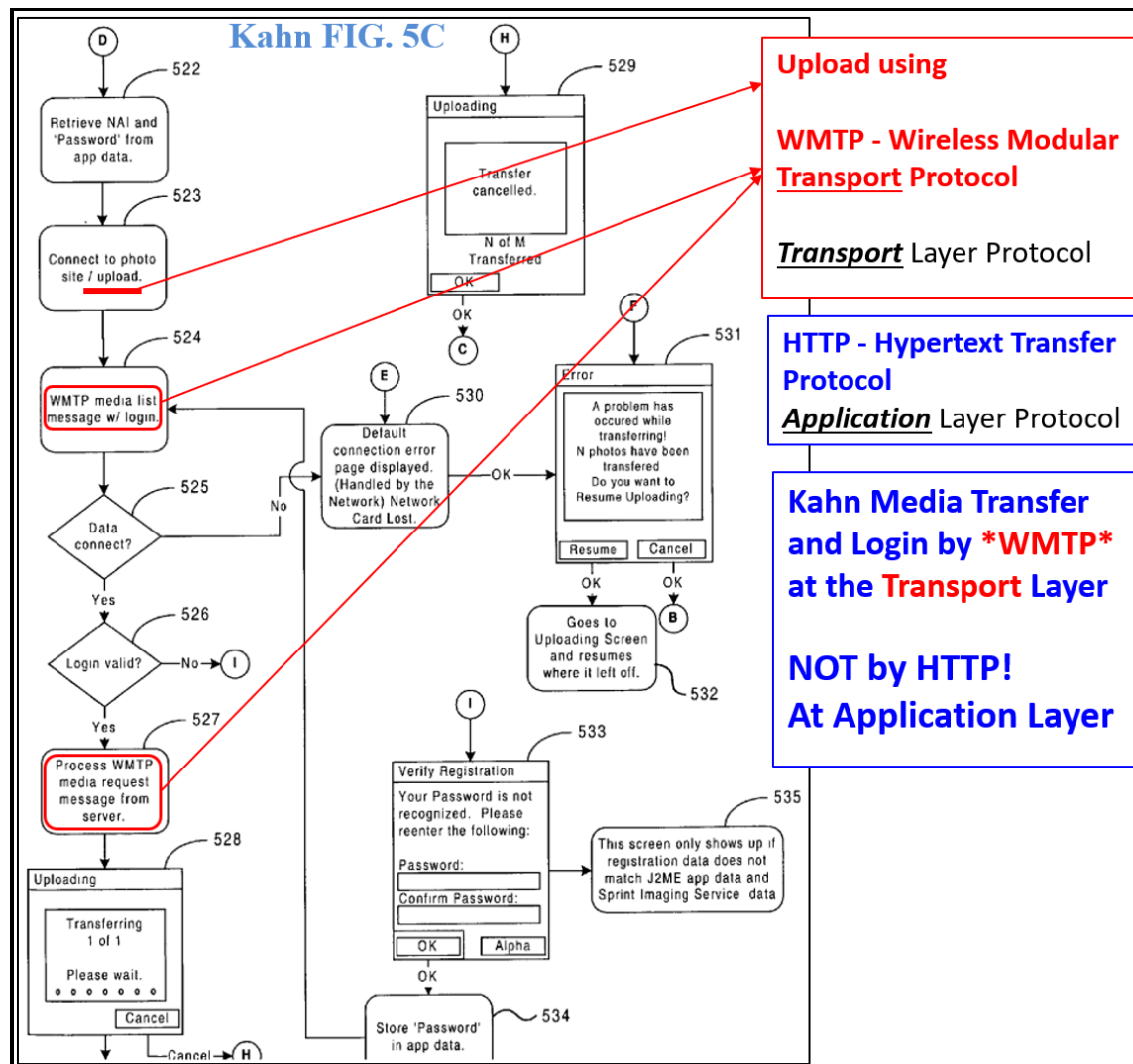
Moreover, polling to “avoid collision” has nothing to do with “checking status of new data.” *See* Gajendragad [Exh. 2001] at ¶ 461.

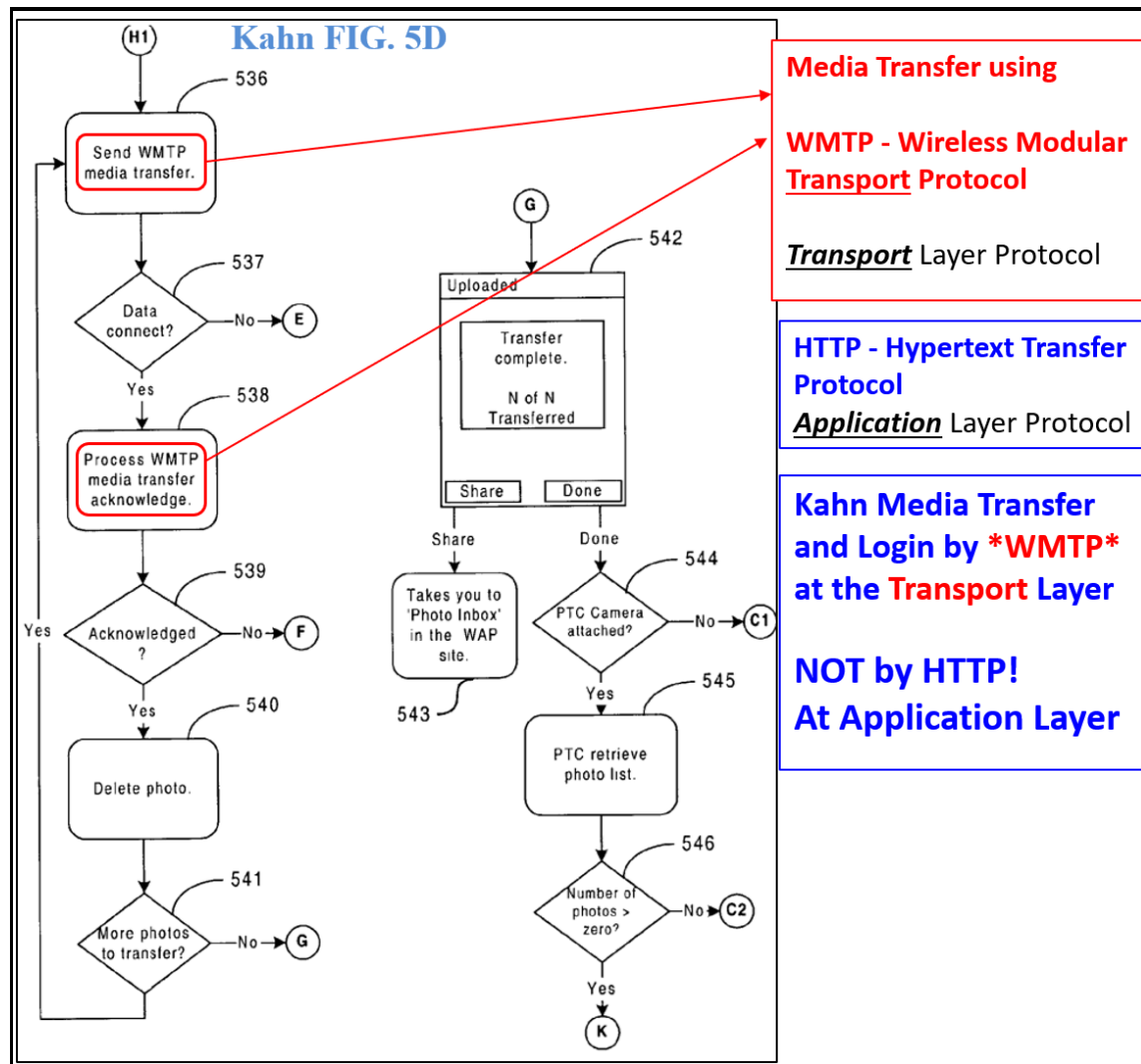
The **fifth** glaring deficiency in Petitioner’s analysis is that Kahn does NOT teach use of HTTP for uploading photos/media. Instead, it required using WMTF for media upload. As discussed at length and in detail above, HTTP and WMTF are clearly NOT interchangeable. *See* Gajendragad [Exh. 2001] at ¶¶ 172, 462.

Wireless Application Protocol (WAP) and Wireless Modular Transport Protocol (WMTF) are the wireless communication technique (circa 2004), and Hyper Text Transfer Protocol (HTTP) is the *standard protocol for the web*. When Kahn says the upload process “occurs via wireless communication technique,” it is

in reference to wireless WAP and wireless WMTF protocols (*not* HTTP). See Gajendragad [Exh. 2001] at ¶¶ 173, 463, 464.

It is very clear with respect to **media transfer and login** that Kahn teaches the *exclusive use of WMTF*. See Kahn Fig 5C and Fig 5D as reproduced below (see Gajendragad [Exh. 2001] at ¶ 174):





Kahn [0057] makes it even more clear that the **Wireless** Modular Transport Protocol (WMTP), a wireless communication technique, is exclusively used for uploading. See Kahn at [0057]: “[T]he *uploading process occurs via **wireless** communication technique*, with the local host (e.g., cell phone, wireless PDA, or the like) assuming responsibility for establishing a wireless data connection.” As taught by Kahn, a POSITA is to use WMTP as described in Fig 5C and Fig 5D. It is

understood that WMTP is a wireless protocol and HTTP is and was a web protocol. *See* Gajendragad [Exh. 2001] at ¶¶ 175, 464.

Kahn Fig 5D, **element 543**, also mentions another wireless communication technique: WAP (**Wireless** Application Protocol). In 2004 (the time of Kahn), the industry was pushing for wireless protocols like WAP and WMTP (**Wireless** Modular Transport Protocol) for wireless mobile device for web access. WAP and WMTP were specifically designed for mobile devices with limited bandwidth, with WAP acting as a gateway to translate requests from a mobile phone into standard HTTP requests, whereas HTTP (Hypertext Transfer Protocol) is the standard protocol used for web browsing on traditional computers. WMTP and WAP were particularly relevant in the early days of mobile internet when data capabilities were significantly lower. *See* Gajendragad [Exh. 2001] at ¶¶ 176, 465.

When Kahn references “wireless communication techniques” in [0057] for “uploading,” it very clearly shows two wireless protocols WMTP and WAP in Fig 5D. It is thus clear that Kahn wants to use wireless protocols like WMTP for upload and NOT web protocol HTTP. *See* Gajendragad [Exh. 2001] at ¶¶ 177, 466.

In its Institution decision relating to the '121 Patent (at page 41), the Board mentions that: “While the term ‘WMTP’ appears in these figures, it does not seem to be defined or discussed elsewhere in Kahn.”

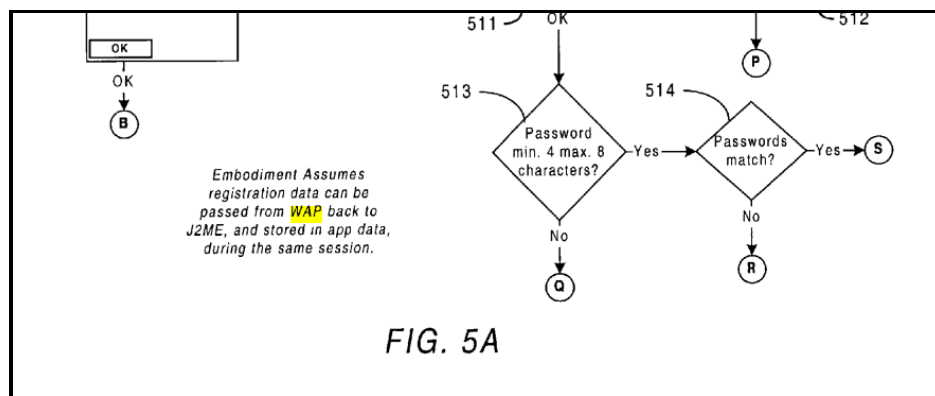
The reason for this is because Kahn assumes the POSITA knows about WAP architecture and usage in the wireless domain. Just like a POSITA for the wired network would know about TCP/IP or OSI stack, Kahn assumes the POSITA is knowledgeable about the WAP architecture and WMTp in the WAP system. Indeed, Kahn talks about wireless transmission techniques and in the detailed diagrams it mentions WMTp and WAP. *See* Gajendragad [Exh. 2001] at ¶¶ 178-179.

In a WAP (Wireless Application Protocol) architecture system, the “wireless modular transport protocol” (WMTp) refers to the Wireless Datagram Protocol (WDP), which acts as the transport layer within the WAP stack, providing a flexible way to transfer data across different network types, even when dealing with unreliable or limited bandwidth connections typical in mobile networks; essentially acting as a modular adaptation layer for various underlying bearer services. *See* Gajendragad [Exh. 2001] at ¶ 180.

Again, it is clear that Kahn intends for the POSITA to use WAP architecture and system. **Kahn talks in great detail about WAP and WAP specification in [0017]** and assumes POSITA to know about WAP architecture, and WAP usage in the wireless domain (WMTp being the transport layer protocol in the WAP architecture in 2004). *See* Khan at [0017]: “**WAP**: Short for the Wireless Application Protocol, a Secure Specification that allows users to access

information instantly via handheld wireless devices Such as mobile phones, pagers, two-way radios, ‘Smart’ phones, and communicators. WAP uses WML or ‘Wireless Markup Language’ which is a tag-based display language providing navigational Support, data input, hyperlinks, text and image presentation, and forms, it is a browsing language Similar to Internet HTML. **WAP supports most wireless networks**, including CDMA and GSM. The **WAP 2.0 specification** is available from Open Mobile Alliance, Ltd.” *See* Gajendragad [Exh. 2001] at ¶ 181.

Further, WAP is also described in Kahn **Fig 5A**, and it is clear that in Kahn 5A, WAP is used to connect the mobile app (J2ME Applet in 2004) to the outside internet for login registration and password. It is NOT HTTP, but WAP that is used for login password and registration (*see* Gajendragad [Exh. 2001] at ¶ 182):



WAP is also described in Kahn **Fig 5G**, which talks about user account that is a “user’s WAP Account.” This is plainly not an HTTP account. *See* Gajendragad [Exh. 2001] at ¶ 183.

Glossary for J2ME App	
Yes-	Confirms action and takes user to next screen
No-	Cancels action and takes user back to previous screen
OK-	Confirms action and takes user to next screen
Done-	Completes task and takes user to initial page
Cancel-	Cancels action and takes user to previous screen
Exit-	Exits application
Upload-	Initiates transfer of selected photo to user's account
Upload All-	Initiates transfer of all photos to user's account
Delete-	Removes selected photo from camera
Delete All-	Removes all photos from camera
Preview-	View photos in camera
Share-	Closes J2ME app and launches to user's WAP account
Next-	Displays next photo
Prev-	Displays previous photo

FIG. 5G

In 2004, WAP (Wireless Application Protocol) was considered better than HTTP (Hypertext Transfer Protocol) for mobile devices due to several reasons (*see* Gajendragad [Exh. 2001] at ¶¶ 184, 469):

1. Optimized for Mobile Devices: WAP was specifically designed for the limited capabilities of mobile devices at the time, such as small screens, low memory, and limited processing power. It used WML (Wireless Markup Language) instead of HTML, which was more suitable for mobile displays.

2. Efficient Use of Bandwidth: WAP was optimized for narrow-band bearers with potentially high latency, making it more efficient in terms of bandwidth usage compared to HTTP. This was crucial for mobile networks, which had slower data speeds and higher latency.

3. Security: WAP included Wireless Transport Layer Security (WTLS), which provided a public-key cryptography-based security mechanism similar to TLS. This was important for ensuring secure communication over potentially unprotected mobile networks.

4. Adaptation to Wireless Networks: WAP was designed to work with various wireless data networks, such as GSM and CDMA, and included protocols like Wireless Datagram Protocol (WDP) and Wireless Transaction Protocol (WTP) that were adapted to the wireless environment. *These features made WAP more suitable for the mobile internet experience in that timeframe.*

Kahn [0056] does talk about using HTTP to communicate with the image server, BUT it is for Ecommerce purpose. This whole text of [0056] where HTTP is mentioned is about the cellphone taking to an image server for e-commerce and processing fulfilment or ordering hardcopies and enlargement. In any event, in Kahn [0056] there is no mention of using HTTP to upload photos. *See* Gajendragad [Exh. 2001] at ¶¶ 185, 470.

Kahn [0062-0063] is another example of Kahn talking about using HTTP for **internal communication** within the Cellphone with hardware GPS chip by Qualcomm SnapCore that is inside the phone itself, by using location API. Here HTTP is being used within the host/cellphone to communicate with the hardware

chip *SnapCore* to get GPS data from the hardware Chip that resides inside the phone itself. The Location API call is **not** going out to the server on the internet, it is to-and-from the Qualcomm chip on the phone. *See* Gajendragad [Exh. 2001] at ¶ 186.

In sum, Kahn is very clear to the POSITA on what protocols to use and where. Specifically: HTTP for e-commerce and internal hardware chip location API. As for uploading/media-transfer and login information, on the other hand, Kahn is very clear to POSITA to use WMTP. *See* Gajendragad [Exh. 2001] at ¶¶ 187, 471.

Petitioner's assertion that POSITA would use HTTP instead of the clear teaching of WMTP in Kahn for uploading/media-transfer/login is not supported at all in Kahn, and does not reflect the approach to be taken by a POSITA. *See* Gajendragad [Exh. 2001] at ¶¶ 188, 472.

Moreover, WMTP and HTTP are very different protocols and they are NOT Interchangeable. A POSITA would understand and appreciate that both WMTP and HTTP run on different layers of the OSI stack. They are NOT interchangeable and there are significant differences between these two protocols. The key difference lies in their primary purpose and application domain: HTTP (Hypertext Transfer Protocol) is the standard protocol for web browsing and data transfer on the internet, while Wireless Modular Transport Protocol (WMTP) is

specifically designed for communication between devices within a wireless modular network, often used in industrial scenarios where reliability and low latency are critical. *See* Gajendragad [Exh. 2001] at ¶¶ 189, 473; *see also* <https://ieeexplore.ieee.org/document/4689157>.

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%.

There are a number of clear differences between HTTP and WMTP. Among them are the following (*see* Gajendragad [Exh. 2001] at ¶ 190):

Key points about HTTP: It is at the *seventh layer* of standards in (OSI) reference model. *Function:* Primarily used for transferring web pages and data between web servers and client devices like web browsers. *Request-Response model:* Operates on a clear request-response mechanism where a client sends a request to a server and receives a response. *Adopted:* as the standard protocol for web communication.

Key points about WMTP: It is at the *fourth layer* of standards in (OSI) reference model. *It Focus on wireless networks:* Designed to facilitate reliable communication between devices within a wireless modular network,

often in industrial settings. *Low latency and reliability*: Prioritizes fast data transfer with high reliability, crucial for real-time control applications. *Specialized use case*: Not as widely used as HTTP, primarily targeted towards applications where devices need to communicate wirelessly in a controlled environment.

Functionality of Transport layer protocols and Application layer protocols are very different. Function of Transport layer protocols like WMTP, TCP, UDP is to manage data segmentation, error checking, and flow control. Function of application layer protocols like HTTP, FTP is to define the structure and content of data for specific applications.

Abstraction level needed and required for both WMTP and HTTP is very different. The transport layer operates at a lower level providing a reliable communication channel. Application layer operates at a much higher layer, allowing applications to focus on their specific tasks without worrying about network complexities.

The reason POSITA will not go against teaching of Kahn for using WMTP and switching to HTTP is because the two protocols are NOT Interchangeable. It is not like switching from FTP to *Secure* FTP. It is even not like switching from FTP to HTTP where both are at the application layer protocol (not recommended). See Gajendragad [Exh. 2001] at ¶ 191.

In sum, HTTP is application layer protocol that is the standard for web-based data transfer, while WMTTP is a specialized transport layer protocol for wireless communication in specific industrial environments, emphasizing reliability and low latency within a dedicated network. They are NOT Interchangeable. *See* Gajendragad [Exh. 2001] at ¶ 192.

The **sixth** glaring deficiency in Petitioner’s analysis is that Kahn does NOT teach a database, wherein *the database stores a user profile*. As discussed in detail above, a POSITA would understand “user profile” as “*a collection of information associated with a user. It contains information such as their Username, Password, Email, Age, Gender, Country/Address,*” and Petitioner has not shown that those set of six attributes are stored in any metadata database in Kahn. *See* Gajendragad [Exh. 2001] at ¶ 474.

The Petition relies on Kahn at [0098] for support for “user profile” database. There is no mention of “*user profile*” anywhere in Kahn, nor is there any disclosure of *Username, Password, Email, Age, Gender, Country/Address* in Kahn. *See* Gajendragad [Exh. 2001] at ¶ 475.

To the extent Kahn mentions “metadata,” this does not satisfy the limitation because metadata has no mention of the ALL the required attributes for the most basic user profile. Petitioner relies ONLY on “location” as an attribute for user profile, which is insufficient. The only mention of “location” as metadata in Kahn

simply does not inform a POSITA of the existence of any “user profile.” *See* Gajendragad [Exh. 2001] at ¶ 476.

Petitioner asserts that “On the other hand, the metadata, including the location ID, is stored as a database record in a database table in the metadata database. The database table is keyed by a unique element (image) ID, and also includes fields for user ID, timestamp (date/time), and location ID (longitude and latitude decimal values). That the database is keyed for user ID means that the database stores user profile.” Patent Owner disagrees. *See* Gajendragad [Exh. 2001] at ¶ 477.

Petitioner quotes the Kahn text that database is keyed to image ID. Then in the very next line, petitioner erroneously suggests that the database is keyed to user ID. **But Kahn plainly says it is keyed to image ID and NOT keyed to user ID.** The user ID, timestamp (date/time), and location ID are just attributed for the Image(photo). The difference is illustrated below of what Kahn teaches and what is actually required under the properly construed claim (*see* Gajendragad [Exh. 2001] at ¶ 478):

<i>Kahn Database prior-art</i>			
Unique Element (Key)	Location ID	Time Stamp	User ID
Unix File name (pointer/hash)	Long/Lat	(date/time)	
Image_ID_1	123/789	Date-1-Time-1	User-ID-XX
Image_ID_2	123/456	Date-2-Time-2	User-ID-XX
Image_ID_3	123/789	Date-1-Time-1	User-ID-YY
Image_ID_4	234/781	Date-2-Time-2	User-ID-YY
Image_ID_5	123/456	Date-2-Time-2	User-ID-YY

<i>User-Profile Database should at least look like</i>						
User ID (Key)	Username	Password	Address	Gender	Age	Email Address
User_ID_1	John	Abc111xy	US	M	42	John42@xxx.com
User_ID_2	Mary	Xyz234ab	Canada	F	34	mary@yyy.com
User_ID_3	Bob	Yy4569df	US	M	37	bob@zzz.com
User_ID_4	Sofia	Cfty9900	Canada	F	37	Sofia23@rrr.com
User_ID_5	Emma	Ntc456yt	US	F	42	Emmaa22@aaa.com

The words “user profile” do NOT exist in Kahn. Just the mention of user ID in the image database would not satisfy the claim requirement when properly construed (as discussed in detail above). Again, the user profile comprising *Username, Password, Email, Age, Gender, Country* has **not** been shown anywhere in Kahn, and no database in Kahn exists with those six attributes. See Gajendragad [Exh. 2001] at ¶ 479.

Even if a separate location metadata database exists in Kahn, Petitioner has not shown that Kahn image metadata has all the basic attributes needed for the user profile (as properly construed). See Gajendragad [Exh. 2001] at ¶ 480.

The **seventh** glaring deficiency in Petitioner’s analysis is that Kahn advertisements are NOT based on the user profile. Given a proper construction of “user profile” (as discussed in detail above) as “*a collection of information associated with a user. It contains information such as their Username, Password,*

Email, Age, Gender, Country/Address,” then Petitioner has **not** shown that advertisement as disclosed in Kahn are based on the user profile. *See* Gajendragad [Exh. 2001] at ¶ 481.

Because Kahn does not have a “user profile” as required, then the ads sent to the WAP, Email or the like in Kahn cannot be based on the non-existent user profile. *See* Gajendragad [Exh. 2001] at ¶ 482.

B. Ground 2 Fails (Singh 129 in View of Singh 906)

Petitioner and its expert suggest suggests that a POSITA would have been motivated to combine the teachings of Singh 129 in view of Singh 906 in order to arrive at the inventions of the Challenged Claims. For a variety of reasons, Patent Owner disagrees.

With respect to teachings of Singh 129 and Singh 906, David Lett provides a claim-by-claim articulation of his thoughts regarding how the Singh 129 in view of Singh 906 reference renders the Challenged Claims obvious. Again, Patent Owner disagrees, and herein addresses the most glaring deficiencies in Petitioner’s analysis. *See* Gajendragad [Exh. 2001] at ¶ 484.

Petitioner makes an unfounded assertion that the Examiner’s withdrawal of the written description rejection was error because purportedly: “the examiner did not analyze whether the applicants were in possession of the claimed combinations

of elements that mix and match features from unrelated patent applications.” *See* Gajendragad [Exh. 2001] at ¶ 485.

The main complaint from the Petitioner for Ground 2 concerns the claim limitation about the client application using HTTP to upload such user information or global positioning information to a user data publishing website and the database and advertising. Petitioner also asserts that these two systems may be **distinct**. *See* Gajendragad [Exh. 2001] at ¶ 486.

Upon a review of Singh 129, Singh 906 and the prosecution history (and especially pages 5, 6, 8, 16, 24, and 25 (‘121 Notice of Allowance) (EXHIBIT 2014), the record reflects the fact that the Examiner necessarily understood that the inventors had full possession of the invention as claimed. *See* Gajendragad [Exh. 2001] at ¶ 487.

The Examiner’s own proposed amendments and his Notice of Allowance details demonstrate that he did not think these were two distinct mobile applications without any common base. He appears to clearly understand both the specifications, and he himself proposed the narrowing of the claim. *See* Gajendragad [Exh. 2001] at ¶ 488.

Clearly, Singh 906 provides the disclosure of the incorporated ‘802 application and was filed on September 19, 2007. Singh 129 provides the disclosure for the ‘030, ‘766, ‘381, and ‘121 Patents, and was filed on December

28, 2007 (only three months after Singh 906). *See* Gajendragad [Exh. 2001] at ¶ 489.

 US 20080103906A1		 US 20090172129A1	
(19) United States (12) Patent Application Publication (43) Pub. Date: May 1, 2008		(19) United States (12) Patent Application Publication (43) Pub. Date: Jul. 2, 2009	
(10) Pub. No.: US 2008/0103906 A1 (51) Int. Cl. G06F 17/00 (2006.01) G06F 15/16 (2006.01) G06Q 30/00 (2006.01) (52) U.S. Cl. 705/14; 705/1; 709/206; 715/202 (57) ABSTRACT The method and system disclosed herein publishes user created multimedia content including voice, video, text, pictures, and a combination thereof on one or more publication virtual spaces, simultaneously. A client application, provided on a mobile device, creates and transfers the multimedia content to a publishing service. A protocol is provided for synchronizing user preferences of the publication virtual spaces between the client application and the publishing service. The multimedia content may be transferred as a single multimedia file, data segments, or electronic mail attachments to a back end service of the publishing service via a front end service. The back end service creates a multimedia object from the transferred multimedia content. The back end service splices targeted advertisements with the multimedia object. The multimedia object is transferred from the back end service to the front end service and then published on the publication virtual spaces chosen by the user.		(10) Pub. No.: US 2009/0172129 A1 (51) Int. Cl. G06F 15/16 (2006.01) (52) U.S. Cl. 709/217 (57) ABSTRACT Disclosed herein is a method and system for utilizing a digital data capture device in conjunction with a Bluetooth (BT) enabled mobile device for publishing data and multimedia content on one or more websites automatically or with minimal user intervention. A client application is provided on the BT enabled mobile device. In the absence of inbuilt BT capability, a BT communication device is provided on the digital data capture device. The BT communication device is paired with the BT enabled mobile device to establish a connection. The client application detects capture of data and multimedia content on the digital data capture device and initiates transfer of the captured data, multimedia content, and associated files. The digital data capture device transfers the captured data, multimedia content, and the associated files to the client application. The client application automatically publishes the transferred data and multimedia content on one or more websites.	
(76) Inventor: Gurvinder Singh, San Francisco, CA (US) Correspondence Address: Ashok Tankha Of Counsel, Lipton, Weinberger & Husick 36 Greenleigh Drive Sewell, NJ 08080 (21) Appl. No.: 11/901,802 (22) Filed: Sep. 19, 2007 Related U.S. Application Data (60) Provisional application No. 60/863,090, filed on Oct. 26, 2006.		(75) Inventors: Gurvinder Singh, San Francisco, CA (US); Marcos Klein, Mountain View, CA (US); Vince Laviano, Alviso, CA (US) Correspondence Address: Ashok Tankha 36 Greenleigh Drive Sewell, NJ 08080 (73) Assignee: CellSpin Soft Inc. (21) Appl. No.: 12/333,303 (22) Filed: Dec. 11, 2008 Related U.S. Application Data (60) Provisional application No. 61/017,202, filed on Dec. 28, 2007.	

It is clear that the inventors merely added new improvements to certain Bluetooth details and incorporated the mobile client application as disclosed in Singh 906. As illustrated below, the written description in both the specifications (Singh 906 and Singh 129) is almost identical, especially with respect to mobile “client application” using “transport protocol” “HTTP”, “XML-RPC” and “user preferences.” Again, the fact that the two specifications are only 3 months apart is telling. *See* Gajendragad [Exh. 2001] at ¶ 490.

Singh 906
filed on Sep 19th 2007

[0047] If the user 201 is not satisfied 405 with the created multimedia object, the user 201 may review or delete 406 the multimedia object and start recording again. Otherwise, the user 201 transfers the multimedia object for publishing to a publication space selected by the user 201. Additional information such as the list of the user preferences of the publication virtual spaces 205, authentication identification, user preferences, default settings, manually entered geographical codes, and auction identifiers for eBay® and other shopping websites are selected 407 and transferred along with the user created multimedia content to the publishing service 204. A remote method call 408 such as extensible markup language-remote procedure call (XML-RPC) may be initiated by the client application 202 to transfer the user created multimedia content along with the additional information to the publishing service 204. The transfer to the

nisms to achieve the connectivity between the publishing service 204 and the client application 202 is the wireless internet. While most PDAs have an inbuilt wireless network card for the internet connectivity, the mobile phones may transfer data to the publishing service 204 over the telephony network at near broadband speeds. Some of the mobile phones equipped with both wireless network and telephony data capabilities may use either of the two to communicate with the publishing service 204. The transport protocol that is used between the client application 202 and the publishing service 204 may be hypertext transfer protocol (HTTP) or extensible markup language-remote procedure calls (XML-RPC). The back end 204c service may be developed in Java.

[0062] It will be readily apparent that the various methods and algorithms described herein may be implemented in a computer readable medium appropriately programmed for

Singh 129
filed on Dec 28th 2007.

The client application 203 automatically publishes the transferred image on one or more websites via the internet 501. The user 502 may set preferences in the mobile device 202. The user preferences, for example, comprise the websites selected for publishing the transferred image. The user 502 may select websites, for example, Flickr™, Picasa™, YouTube™, eBay®, etc. and store the preferences on the mobile device 202. The user 502 may also set the timer setting for publishing the transferred image on the selected websites. After the captured image is transferred to the mobile device 202, the client application 203 publishes the capture image on the selected websites based on the default timer and website settings configured by the user 502 on the mobile device 202.

The client application 203 may be rendered independent 30 of the operating system of the mobile device 202. One of the transport mechanisms to achieve the connectivity between the publishing service 401 and the client application 203 is the wireless internet. While most PDAs have an inbuilt wireless network card for the internet connectivity, the 35 mobile phones may transfer data to the publishing service 401 over the telephony network at near broadband speeds. Some of the mobile phones equipped with both wireless network and telephony data capabilities may use either of the two to communicate with the publishing service 401. 40 The transport protocol that is used between the client application 203 and the publishing service 401 may be hypertext transfer protocol (HTTP) or extensible markup language-remote procedure calls (XML-RPC). The back end service 401b may, for example, be developed in Java.

Excerpted text from Singh 906 (without Bluetooth and other details)

(Publishing system **without** connected Bluetooth device) is presented below for reference (see Gajendragad [Exh. 2001] at ¶ 491):

[0018] “The client application 202 communicates the **user publishing information** including the **user preferences** of the publication virtual spaces 205 to the front end service”

[0047] “If the user 201 is not satisfied 405 with the created multimedia object, the user 201 may review or delete 406 the multimedia

object and start recording again. Otherwise, the user 201 **transfers** the **multimedia** object for publishing to a **publication** space selected by the user 201. **Additional information** such as the list of the **user preferences** of the publication virtual spaces 205, **authentication identification**, user preferences, default settings, manually entered **geographical codes**, and auction identifiers for eBay® and other shopping websites are selected 407 and **transferred along with the user created multimedia** content to the publishing service 204. A remote method call 408 such as extensible markup language-remote procedure call (**XML-RPC**) may be initiated by the client application 202 to transfer the user created multimedia content along with the additional information to the publishing service 204”

[0061] “The **transport protocol** that is used between the **client application 202** and the publishing service 204 may be **hypertext transfer protocol (HTTP)** or extensible markup language-remote procedure calls (**XML-RPC**)”

Similarly, excerpted text from Singh 129 (Publishing **using** connected Bluetooth device) is presented below for reference (*see* Gajendragad [Exh. 2001] at ¶ 492):

[8:28-8:35] “The **client application** 203 automatically **publishes the transferred image** on one or more websites via the internet 501. The user

502 may set **preferences** in the mobile device 202. The **user preferences**, for example, comprise the web sites selected **for publishing** the transferred image. The user 502 may select websites, for example, Flickr, Picasa, YouTube, eBay(R), etc. and store the preferences on the mobile device 202.”

[9:55-9:61] “The **transport protocol** that is used between the **client application 203** and the publishing service 401 may be **hypertext transfer protocol (HTTP)** or extensible markup language-remote procedure calls (XML-RPC).”

[7:57-7:60] “**user publishing information** between the client application 203 and the publishing service 401. The **user publishing information** may, for example, **comprise user preferences** of the websites and the timer setting.”

[9:06-9:14] “The method and system disclosed herein **enables Jane** **to** automatically upload pictures and videos taken using her digital camera or video camera onto a mobile device 202 and **publish the pictures**, videos, etc. from her mobile device 202 to the internet 501 with one click or touch of a button. On one click or touch of a button, the pictures and videos are published and immediately made available on **Jane’s private blog**.”

The side-by-side comparison clearly shows both those applications have a common system and the main difference is additional Bluetooth functionality. The

written description in both the specifications (Singh 906 and Singh 129) is almost identical, especially with respect to mobile “client application” using “transport protocol” “HTTP”, “XML-RPC” and “user preferences” “user publishing information.” This is clear to a POSITA. *See* Gajendragad [Exh. 2001] at ¶ 493.

The Examiners’ own Notice of Allowance shows that he not only understood the scenario but actually proposed his own amendments in the interview with the inventor. Moreover, the Amendments proposed by the Examiner included the very thing that Petitioner now claims was NOT in the original specification, namely: GPS information, which was ONLY in the incorporated reference (*see* Gajendragad [Exh. 2001] at ¶ 494):

Examiner Amendment

An examiner’s amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Applicant agreed that the examiner’s amendment, authorized by Ashok Tankha on 2/2/23

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

display a mobile advertisement inside the mobile software application;

It is further recognized that the '381 Patent was issued *after* the '121 Patent. As such, the Examiner was already aware of the Singh 906 incorporation from before, and he once again personally proposed the incorporation of material from Singh 906. This was after already doing the same thing two years earlier for the '121 Patent. *See* Gajendragad [Exh. 2001] at ¶ 495.

Petitioner's suggestion that the Examiner made the same alleged mistake multiple times is unsupported and contrary to the record, and runs against the understanding that Examiners are presumed to have performed their duties properly. From the perspective of a POSITA, the Examiner's actions are consistent with the conclusion that he fully understood the incorporated materials. *See* Gajendragad [Exh. 2001] at ¶ 496.

It is again noted that the Examiner narrowed the claims by using the material from Singh 906 on two separate occasions. Likewise, the Examiner himself initiated the interview twice to narrow the claims using the Singh 906

specification. Again, it was the Examiner himself who proposed the addition of HTTP with GPS from Singh 906 into the patent claims. These facts are consistent with a full understanding and acceptance of the incorporated material. *See* Gajendragad [Exh. 2001] at ¶ 497.

In sum, all of the terms in each of the Challenged Claims is adequately supported by the written description, when such is properly viewed from the perspective of a POSITA. Upon review, a POSITA would appreciate that the inventors were in possession of the inventions as claimed, and the Examiner's actions are fully consistent with this, as well. *See* Gajendragad [Exh. 2001] at ¶ 498.

VI. CONCLUSION

For the reasons set forth above, Petitioner has failed to meet its burden of establishing the unpatentability of the Challenged Claims. Accordingly, Patent Owner respectfully submits requests that the relief sought in the Petition be denied, and that all Challenged Claims be upheld as patentable and valid.

//

Date: January 3, 2025

Respectfully submitted,

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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 12,476 words, excluding those portions exempted under 37 C.F.R. § 42.24(a)(1).

Dated: January 3, 2025

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CERTIFICATION OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6(e) and 42.105(b), the undersigned certifies that on January 3, 2025, a copy of the foregoing document was served by electronic mail on the following:

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