

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of: Singh et al.
U.S. Patent No.: 11,234,121 Attorney Docket No.: 50048-0055IP1
Issue Date: January 25, 2022
App. Serial No.: 16/532,507
Filing Date: August 6, 2019
Title: AUTOMATIC MULTIMEDIA UPLOAD FOR
PUBLISHING DATA AND MULTIMEDIA CONTENT

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**PETITION FOR *INTER PARTES* REVIEW OF UNITED STATES PATENT
NO. 11,234,121 PURSUANT TO 35 U.S.C. §§ 311-319, 37 C.F.R. § 42**

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LIST OF EXHIBITS

- TTI-1001 U.S. Patent No. 8,904,030 to Singh et al. (“the ’030 patent”)
- TTI-1002–1004 RESERVED
- TTI-1005 U.S. Patent No. 11,234,121 to Singh et al. (“the ’121 patent”)
- TTI-1006 Excerpts from the Prosecution History of the ’121 patent
- TTI-1007–1008 RESERVED
- TTI-1009 U.S. Patent App. Pub. No. 2009/0172129 to Singh et al. (“Singh129”)
- TTI-1010 U.S. Patent App. Pub. No. 2008/0103906 to Singh (“Singh906”)
- TTI-1011 Certified Translation of JP 2003-60953 (“Hiroishi”)
- TTI-1012 Certificate of Translation for Hiroishi
- TTI-1013 Original Japanese Publication of Hiroishi
- TTI-1014–1016 RESERVED
- TTI-1017 U.S. Patent App. Pub. No. 2004/0004737 to Kahn (“Kahn”)
- TTI-1018 U.S. Patent No. 8,385,950 (“Wagner”)
- TTI-1019 Bluetooth Core Specification V2.1 + EDR
- TTI-1020 U.S. Patent No. 6,636,259 (“Anderson”)
- TTI-1021 U.S. Patent No. 7,639,943 (“Kalajan”)
- TTI-1022 U.S. Patent App. Pub. No. 2006/0173985 (“Moore”)
- TTI-1023 RESERVED
- TTI-1024 U.S. Pub. 2006/0139474 (“Endsley”)

TTI-1025 RESERVED

TTI-1026 U.S. Patent Application No. 11/901,802 (“Singh906 Application”)

TTI-1028 RESERVED

TTI-1029 U.S. Patent App. Pub. No. 2002/0046249 to Shiigi (“Shiigi”)

TTI-1030 Declaration of David Lett

TTI-1031 Archived Webpage Bluetooth™ Core Specification v2.1 + EDR
(<https://web.archive.org/web/20071011031607/http://bluetooth.com/Bluetooth/Learn/Technology/Specifications/Default.htm>)

TTI-1032 C. Bisdikian, "An overview of the Bluetooth wireless technology," in
IEEE Communications Magazine, vol. 39, no. 12, pp. 86-94, Dec.
2001, doi: 10.1109/35.968817 (“The Bluetooth Overview”)

TTI-1033 RESERVED

TTI-1034 Memorandum, Interim Procedure for Discretionary Denials in AIA
Post-Grant Proceedings with Parallel District Court Litigation
(USPTO June 21, 2022) (“Interim Guidance”)

TTI-1035 TikTok Stipulation letter regarding IPR grounds in District court
litigation

TTI-1036 CellSpin Preliminary Infringement Contentions in *CellSpin Soft, Inc.*
v. ByteDance, Ltd. et al., Case No. 2:23-cv-496 (E.D. Tex.)

LISTING OF CLAIMS

Claim 1	
1P	A short-range wireless enabled data capture device, comprising
1.1	a memory device;
1.2	a processor coupled to the memory device;
1.3.1	a short-range wireless communication device configured to establish a short-range paired wireless connection between the short-range wireless enabled data capture device and a short-range wireless enabled cellular phone,
1.3.2	wherein establishing the short-range paired wireless connection comprises the short-range wireless enabled data capture device cryptographically authenticating identity of the short-range wireless enabled cellular phone;
1.4	a data capture circuitry;
1.5.1	said processor configured to acquire new-data in the short-range wireless enabled data capture device using the data capture circuitry,
1.5.2	wherein the new-data is data acquired after establishing the short-range paired wireless connection between the short-range wireless enabled data capture device and the short-range wireless enabled cellular phone;
1.6	said processor further configured to store the new-data in the memory device;
1.7.1	said processor further configured to send an event notification and the acquired new-data to the cryptographically authenticated short-range wireless enabled cellular phone over the established short-range paired wireless connection automatically,
1.7.2	wherein the event notification corresponds to the acquired new-data and comprises sending a signal to the cryptographically authenticated short-range wireless enabled cellular phone,

1.8	wherein the cryptographically authenticated short-range wireless enabled cellular phone is configured to listen to the event notification and receive the new-data over the established short-range paired wireless connection,
1.9.1	wherein a single mobile client application for the cryptographically authenticated short-range wireless enabled cellular phone is configured to process the event notification and
1.9.2	store the received new-data in a memory device of the cryptographically authenticated short-range wireless enabled cellular phone,
1.10	wherein the single mobile client application for the cryptographically authenticated short-range wireless enabled cellular phone stores a user authentication credential in the memory device of the cryptographically authenticated short-range wireless enabled cellular phone,
1.11	wherein the single mobile client application for the cryptographically authenticated short-range wireless enabled cellular phone is configured to use HTTP to upload the received new-data and the user authentication credential to a user data publishing website over a cellular data network,
1.12	wherein the upload is based on a timer setting on the single mobile client application, wherein the timer setting is no wait automatic or wait X minutes automatic,
1.13	wherein the single mobile client application for the short-range wireless enabled cellular phone is further configured to use the HTTP to send a user preference to the user data publishing website over the cellular data network, wherein the user preference comprises global positioning system information, and
1.14	wherein the single mobile client application for the cryptographically authenticated short-range wireless enabled cellular phone provides a touch based GUI for the received new-data.

Claim 2	
2.	The short-range wireless enabled data capture device of claim 1, wherein the short-range paired wireless connection is one of a Bluetooth paired wireless connection, a Wi-Fi paired wireless connection, and other wireless personal area networking technologies that use pairing.
Claim 3	
3.	The short-range wireless enabled data capture device of claim 1, wherein the user authentication credential sent by the single mobile client application is used to authenticate a user on the user data publishing website and publish the new-data for private use on the user data publishing website.
Claim 4	
4.P	A system, comprising:
4.1	a short-range wireless enabled data capture device, comprising:
4.2	a first memory device;
4.3	a first processor coupled to the first memory device;
4.4.1	a first short-range wireless communication device configured to establish a short-range paired wireless connection with a short-range wireless enabled cellular phone,
4.4.2	wherein the short-range wireless enabled cellular phone is internet enabled,
4.4.3	wherein establishing the short-range paired wireless connection comprises, the short-range wireless enabled data capture device cryptographically authenticating identity of the short-range wireless enabled cellular phone;
4.5	a data capture circuitry;
4.6.1	said first processor configured to acquire new-data in the short-range

	wireless enabled data capture device using the data capture circuitry,
4.6.2	wherein the new-data is data acquired after establishing the short-range paired wireless connection with the short-range wireless enabled cellular phone;
4.7	said first processor further configured to store the new-data in the first memory device; and
4.8.1	said first processor further configured to send an event notification and the acquired new-data to the cryptographically authenticated short-range wireless enabled cellular phone over the established short-range paired wireless connection automatically,
4.8.2	wherein the event notification corresponds to the acquired new-data and comprises sending a signal to the cryptographically authenticated short-range wireless enabled cellular phone;
4.9	said short-range wireless enabled cellular phone, comprising: a second memory device;
4.10	a second processor coupled to the second memory device;
4.11	a cellular network communication device configured to connect to the internet via a cellular data network;
4.12	a second short-range wireless communication device configured to establish the short-range paired wireless connection between the short-range wireless enabled cellular phone and the short-range wireless enabled data capture device;
4.13	a single mobile client application for the short-range wireless enabled cellular phone comprising executable instructions that, when executed by the second processor controls the second processor to:
4.14	listen for the event notification sent by the short-range wireless enabled data capture device, wherein the single mobile client application for the short-range wireless enabled cellular phone is configured to process the event notification;
4.15	receive the new-data from the short-range wireless enabled data

	capture device;
4.16	store the received new-data in the second memory device;
4.17	store a user authentication credential in the second memory device;
4.18	use HTTP to upload the received new-data and the user authentication credential to a user data publishing website over the cellular data network, wherein the upload is based on a timer setting on the single mobile client application, and wherein the timer setting is no wait automatic or wait X minutes automatic;
4.19	use the HTTP to send a user preference to the user data publishing website over the cellular data network, wherein the user preference comprises global positioning system information; and
4.20	provide a touch based graphical user interface for the received new-data.
Claim 5	
5.	The system of claim 4, wherein the short-range paired wireless connection is one of a Bluetooth paired wireless connection, a Wi-Fi paired wireless connection, and other wireless personal area networking technologies that use pairing.
Claim 6	
6.	The system of claim 4, wherein the user authentication credential is for a user of the user data publishing website.
Claim 7	
7.P	A short-range wireless enabled cellular phone, comprising:
7.1	a memory device;
7.2	a processor coupled to the memory device;
7.3	a cellular network communication device configured to connect to internet via a cellular data network;

7.4.1	a short-range wireless communication device configured to establish a short-range paired wireless connection between the short-range wireless enabled cellular phone and a short-range wireless enabled data capture device,
7.4.2	wherein the short-range wireless enabled data capture device is configured to cryptographically authenticate identity of the short-range wireless enabled cellular phone;
7.5	a single mobile client application for the short-range wireless enabled cellular phone comprising executable instructions that, when executed by the processor controls the processor to:
7.6.1	listen for an event notification sent by the short-range wireless enabled data capture device, wherein the event notification corresponds to new-data and comprises sending a signal by the short-range wireless enabled data capture device to the short-range wireless enabled cellular phone,
7.6.2	wherein the new-data is data acquired by the data capture device after establishing the short-range paired wireless connection with the short-range wireless enabled cellular phone;
7.7	receive the event notification and the new-data from the short-range wireless enabled data capture device;
7.8	process the event notification and store the received new-data in the memory device;
7.9	store a user authentication credential in the memory device;
7.10	use HTTP to send a user preference to a user data publishing web service over the cellular data network, wherein the user preference comprises global positioning system information;
7.11.1	further use the HTTP to upload the received new-data and the user authentication credential to the user data publishing web service over the cellular data,
7.11.2	wherein the upload is based on a timer setting on the single mobile client application, and wherein the timer setting is no wait automatic

	or wait X minutes automatic; and
7.12	provide a touch based graphical user interface for the received new-data.
Claim 8	
8.	The short-range wireless enabled cellular phone of claim 7, wherein the short-range paired wireless connection is one of a Bluetooth paired wireless connection, a Wi-Fi paired wireless connection, and other wireless personal area networking technologies that use pairing.
Claim 9	
9.P	A short-range wireless enabled data capture device, comprising:
9.1	a memory device;
9.2	a processor coupled to the memory device;
9.3.1	a short-range wireless communication device configured to establish a short-range paired wireless connection between the short-range wireless enabled data capture device and a short-range wireless enabled cellular phone,
9.3.2	wherein establishing the short-range paired wireless connection comprises the short-range wireless enabled data capture device cryptographically authenticating identity of the short-range wireless enabled cellular phone;
9.4	a data capture circuitry;
9.5.1	said processor configured to acquire new-data in the short-range wireless enabled data capture device using the data capture circuitry,
9.5.2	wherein the new-data is data acquired after establishing the short-range paired wireless connection between the short-range wireless enabled data capture device and the short-range wireless enabled cellular phone;

9.6	said processor further configured to store the new-data in the memory device of the short-range wireless enabled data capture device;
9.7	said processor further configured to listen to a polling request from a single mobile client application on the short-range wireless enabled cellular phone, over the established paired short-range wireless connection, wherein the polling request is for the new-data,
9.8	wherein the single mobile client application on the short-range wireless enabled cellular phone is configured to detect the new-data for transfer from the short-range wireless enabled data capture device to the paired and the cryptographically authenticated short-range wireless enabled cellular phone, wherein detecting the new-data for transfer comprises: polling the short-range wireless enabled data capture device by the short-range wireless enabled cellular phone, using the single mobile client application on the short-range wireless enabled cellular phone, over the established paired short-range wireless connection
9.9	said processor further configured to transfer the new-data from the short-range wireless enabled data capture device to the short-range wireless enabled cellular phone automatically over the established paired short-range wireless connection,
9.10	wherein the single mobile client application on the short-range wireless enabled cellular phone is further configured to receive the new-data over the established short-range paired wireless connection,
9.11	wherein the single mobile client application on the short-range wireless enabled cellular phone is further configured to store the received new-data in a memory device of the short-range wireless enabled cellular phone,
9.12	wherein the single mobile client application for the short-range wireless enabled cellular phone stores a user authentication credential in the memory device of the short-range wireless enabled cellular phone,

9.13	wherein the single mobile client application on the short-range wireless enabled cellular phone is further configured to use HTTP to send a user preference to a user data publishing website over a cellular data network, wherein the user preference comprise global positioning system information,
9.14	wherein the single mobile client application on the short-range wireless enabled cellular phone is further configured to use the HTTP to upload the received new-data and the user authentication credential to the user data publishing website over the cellular data network,
9.15	wherein the upload is based on a timer setting on the single mobile client application, and wherein the timer setting is no wait automatic or wait X minute automatic, and
9.16	wherein the single mobile client application on the short-range wireless enabled cellular phone provides a touch based GUI for the received new-data.
Claim 10	
10.	The short-range wireless enabled data capture device of claim 9, wherein the short-range paired wireless connection is one of a Bluetooth paired wireless connection, a Wi-Fi paired wireless connection, and other wireless personal area networking technologies that use pairing.

TikTok Inc. (“Petitioner”) petitions for *Inter Partes* Review of claims 1-10 (“the Challenged Claims”) of U.S. Patent No. 11,234,121 (“the ’121 patent”). Notably, in IPR2019-00127 and IPR2019-00131, similar claims of related U.S. Patent No. 9,258,698 (“the ’698 patent”) were found unpatentable over the prior art, including the Hiroishi reference presented here. Although the challenged claims of the ’121 patent recite at least one additional limitation (*e.g.*, uploading user authentication credentials and global positioning information and other obvious variants) the Challenged Claims are likewise not patentable.

I. REQUIREMENTS FOR IPR

A. Standing

Petitioner certifies that the ’121 patent is available for IPR and Petitioner is not barred from requesting IPR.

B. Challenge and Relief Requested

Petitioner requests IPR of the Challenged Claims on the grounds listed below. A declaration from David Lett (TTI-1030) supports this Petition.

Ground	Claims	Basis
1	1-10	§103: Hiroishi in view of Kahn, Endsley and Bluetooth
2	1-10	§103: Singh129 in view of Singh906

No challenged claim can claim priority before the filing date of the application that issued as the ’121 patent because the priority documents fail to

disclose the claimed subject matter (as will be explained in Section V). Therefore, Singh129 and Singh906 each qualifies as prior art under AIA 35 U.S.C. § 102(a)(1). Each reference published approximately 10 years before the filing of the application that issued as the '121 patent.

As shown below, each remaining reference pre-dates the '121 patent's earliest claimed priority date of December 28, 2007 (the alleged "Critical Date").

Reference	Publication Date	Prior Art At Least Under
Hiroishi	Feb. 28, 2003	Pre-AIA § 102(b)
Kahn	Jan. 8, 2004	Pre-AIA § 102(b)
Endsley	June 29, 2006	Pre-AIA § 102(b)
Bluetooth	July 26, 2007	Pre-AIA § 102(a)

II. THE '121 PATENT

A. Brief Description

The '121 patent discloses "utilizing a digital capture device in conjunction with a Bluetooth (Bluetooth) enabled mobile device for publishing data and multimedia content on one or more websites automatically or with minimal user intervention." TTI-1005, 2:21-27. The '121 patent's system includes digital data capture device 201, Bluetooth enabled mobile device 202, and publishing service 401. *Id.*, Figs. 2, 4.

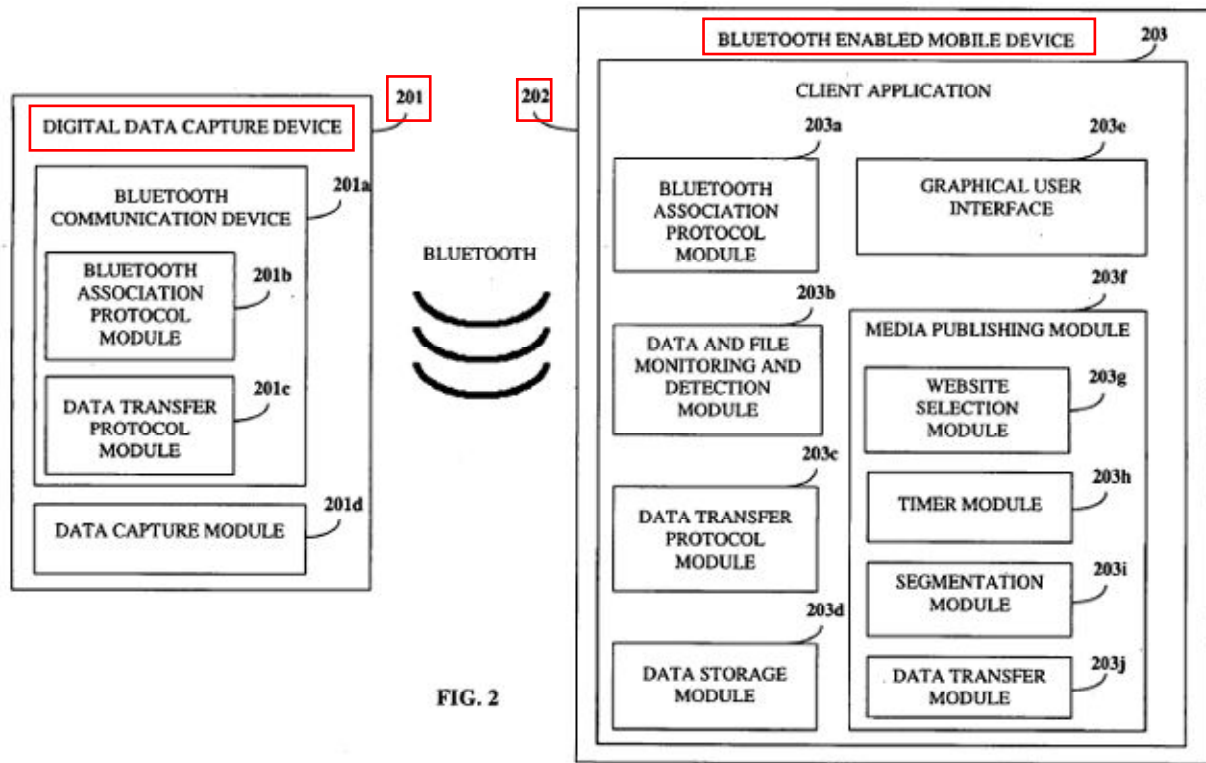
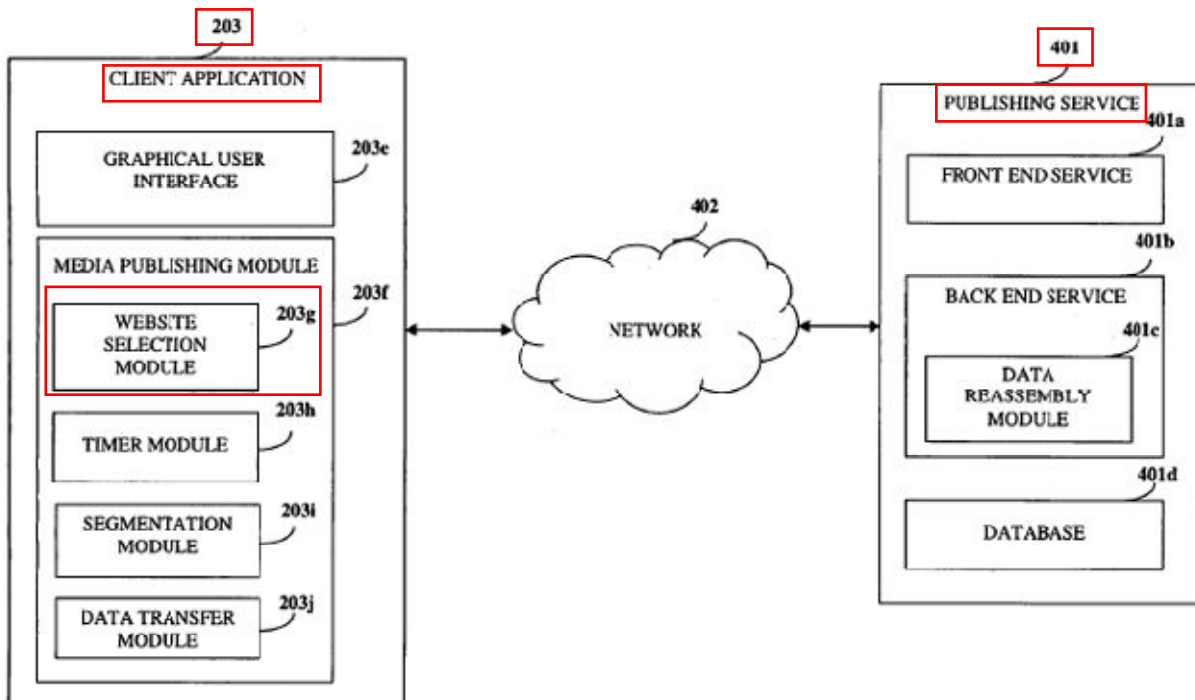


FIG. 2

Id., Fig. 2 (annotated).



Id., Fig. 4 (annotated).

As shown above, mobile device 202 includes client application 203, which “detects capture of data and multimedia content on the digital data capture device” and the “digital data capture device transfers the captured data, multimedia content, and the associated files to the client application.” *Id.*, Abstract. Then, the “client application automatically publishes the transferred data and multimedia content on one or more websites.” *Id.*

The '121 patent (at 1:48-52) has a section entitled “Cross Reference to Related Applications,” which provides the priority chain and further attempts to incorporate by reference U.S. Pat. App. 11/901,802, which later published as Singh906. That application is not otherwise mentioned or discussed in the '121 patent. Singh906 discloses a different system—one that uses a client application 202 on a mobile device that generates multimedia content and sends that content to publishing service 204. There is no separate data capture device in Singh906’s system.

Notably, Singh906 discloses mobile device client application 202 that includes advertising module 202c. *Id.*, Abstract, [0023]-[0025], [0032], FIG. 2. Furthermore, Singh906 discloses publishing service 204 that includes: (i) front end service 204b for publishing the multimedia “according to user preferences,” including “authentication credentials” and “global positioning system geographical

codes;” (ii) “back end service [204c that] splices targeted advertisements with the multimedia;” and (iii) database 204a, which includes user profiles. *Id.*; *see also* [0028] (“The preferences set by the user 201 [and transferred to the publishing service 204] may be authentication credentials, transaction identification, list of publication virtual spaces 205, global positioning system geographical codes, area code for the phone number of the mobile device, file format of the user created multimedia content, and compression rate for the user created multimedia content.”), [0034] (“The database 204a of the publishing service 204 comprises user profiles, user preferences, advertisement profiles, advertisements, and user created multimedia content.”).

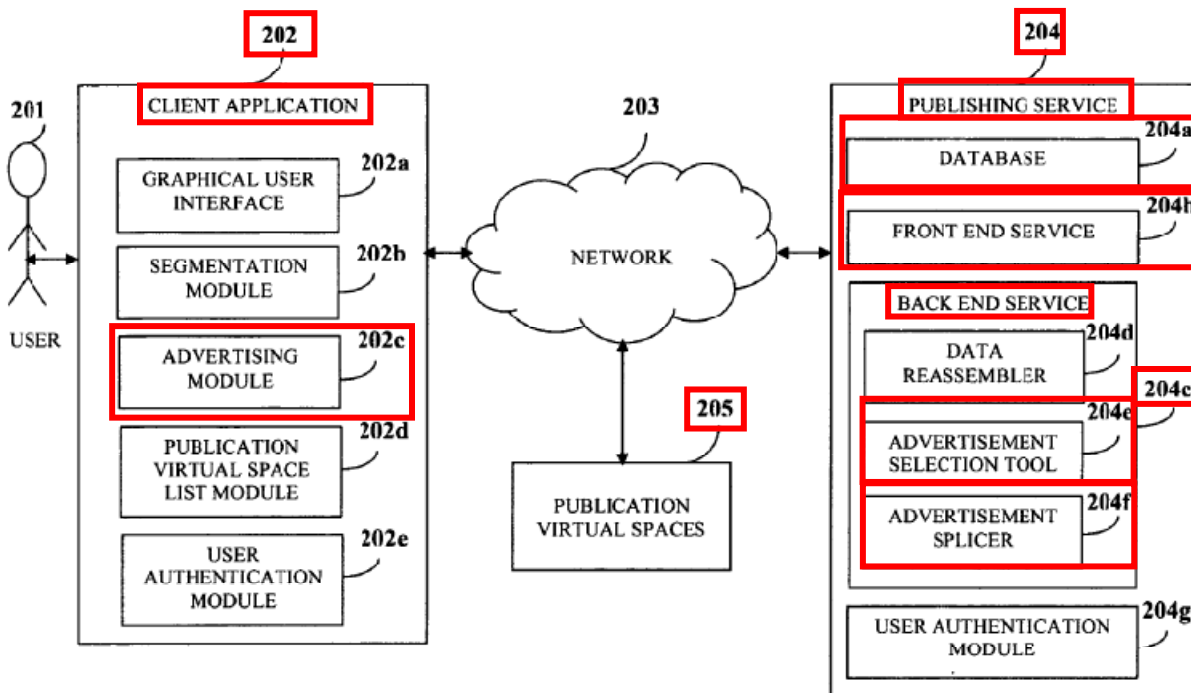


FIGURE 2

It is only in Singh906 that the user authentication credentials and global positioning information are sent by the mobile phone to the publishing service. *See, e.g.*, TTI-1010, [0023] (“The user preferences may comprise authentication credentials, transaction identification, a list of publication virtual spaces 205, global positioning system geographical codes, area code for the phone number of the mobile device, file format of the user created multimedia content, and a compression rate of the multimedia content.”). The ’121 patent itself does not disclose including user authentication credentials or global positioning information with the images when transferring images to the publishing service.

B. Summary of the Prosecution History

The application resulting in the ’121 patent was filed on August 6, 2019 (the ’507 application). During prosecution, the patent owner relied on the incorporation by reference of Singh906 to support certain features. *See, e.g.*, TTI-1006, 271. Specifically, Patent Owner relied on Sing906 for having and sending “authentication credentials” and “global positioning system geographical codes.” *Id.* There is no support for those limitation in the priority applications.

III. LEVEL OF ORDINARY SKILL

A person of ordinary skill in the art (“POSITA”) at the time of the ’121 patent alleged Critical Date would have had at least a bachelor’s degree in electrical engineering, computer engineering, or computer science, and two years

of experience in the field consumer electronics, with exposure to digital camera technology and wireless communications. TTI-1030, [94]-[95]. Superior education could compensate for a deficiency in work experience, and vice-versa. *Id.*

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).

Nonetheless, Petitioner notes that, for purposes of determining whether to institute IPR2019-00127 regarding related U.S. Pat. No. 9,258,698, the Board “determine[d] that ‘cryptographically authenticating identity of the cellular phone’ encompasses ‘authenticating the identity of the cellular phone using some form of security or encryption, including by use of a shared passkey on the digital camera device and the cellular phone.’” *Canon U.S.A., Inc. v. Cellspin Soft, Inc.*, IPR2019-00127, Paper 7, p. 11 (P.T.A.B. April 29, 2019); *but see id.* at Paper 51, pp. 17-18 (finding that no construction was required to address the patentability issues).

**V. THE CHALLENGED CLAIMS ARE NOT ENTITLED TO
CLAIM PRIORITY TO ANY EARLIER FILING DATE**

The '121 patent claims priority, through a series of continuations, to a provisional application filed on December 28, 2007. TTI-1005, 1:8-47. Patent Owner previously pursued claims directed to the methods and systems described in the specification of the '121 patent, but those claims were found unpatentable. *See, e.g., Canon*, IPR2019-00127, Paper 51 (finding all claims of related U.S. Patent No. 9,258,698 unpatentable). Shortly thereafter, Patent Owner began filing new claims, including those at issue here. However, Patent Owner failed to describe the subject matter claimed in any of the priority documents because the challenged claims mix and match elements from different systems and improperly rely on essential material disclosed in an unrelated patent application that is incorporated by reference. Thus, Patent Owner is not entitled to any priority date earlier than the filing of the application maturing as the '121 patent.

A. Legal Standard

Priority

To rely on the filing date of an earlier application, 35 U.S.C. § 120 requires that the earlier application include a disclosure that complies with the written description requirement of 35 U.S.C. § 112. *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1571-72 (Fed. Cir. 1997) (confirming the written description must

provide more than that which “would lead one to speculate as to modifications that the inventor might have envisioned, but failed to disclose”).¹ The written description requirement is separate and distinct from the enablement requirement. *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1340 (Fed. Cir. 2010) (en banc); *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1560 (Fed. Cir. 1991).

The written description requirement has several policy objectives. One objective is to convey to the public what the applicant claims as the invention. *See Regents of the Univ. of Cal. v. Eli Lilly*, 119 F.3d 1559, 1566 (Fed. Cir. 1997), *cert. denied*, 523 U.S. 1089 (1998). “[T]he disclosure as originally filed does not have to provide *in haec verba* support for the claimed subject matter at issue.” *Purdue Pharma L.P. v. Faulding Inc.*, 230 F.3d 1320, 1323 (Fed. Cir. 2000). However, “one skilled in the art, reading the original disclosure, must immediately discern the limitation at issue in the claims.” *Id.*

“The question is not a question of whether one skilled in the art might be able to construct the patentee’s device from the teachings of the disclosure ... it is a question whether the application necessarily discloses that particular device.”

¹ *See SAP Am., Inc. v. Pi-Net Int’l, Inc.*, IPR No. 2014-00414, Paper No. 11, 1114 (P.T.A.B. Aug. 18, 2014) (relying on § 112 case law is proper in an *inter partes* review to establish effective filing date).

Lockwood, 107 F.3d at 1572. As explained by the Federal Circuit, “one cannot disclose a forest in the original application, and then later pick a tree out of the forest and say here is my invention. In order to satisfy the written description requirement, the blaze marks directing the skilled artisan to that tree must be in the originally filed disclosure.” *Purdue Pharma*, 230 F.3d at 1326-1327; *see also Fujiwara v. Wattanasin*, 93 F.3d 1559, 1571 (Fed. Cir. 1996); *Intuitive Surgical, Inc. v. Ethicon LLC*, IPR2019-01110, Paper 30 at 10-15 (P.T.A.B Nov. 20, 2020) (rejecting amended claims for lack of written description support because the patent did not “inform one skilled in the art that the inventors contemplated the specific combination of elements recited in the proposed substitute claims”).

Incorporation by Reference

Essential material is material that is needed to fulfill one or more of the requirements for a patent application. 37 C.F.R. § 1.57(d). Incorporated material is deemed essential if it is necessary to fulfill the written description requirement. *Id.* Essential material may only be incorporated by reference to a U.S. patent or a U.S. patent application publication that contains the essential material and does not, itself, incorporate the essential material by reference. *Id.*; *see also SharkNinja Operating LLC, et al. v. iRobot Corp.*, IPR2020-00733, Paper 31, 19 (PTAB Oct. 4, 2021).

**B. No Priority Application Contains Written Description
Support For The Claimed Combination of Elements**

Each Challenged Claim require “a mobile software application for a Bluetooth enabled cellular phone, wherein the mobile software application is embodied as executable program instructions that, when executed by a processor of the Bluetooth enabled cellular phone, [is] configured to”² perform several different functions. No such system is disclosed in the priority documents.

Instead, the Challenged Claims mix and match features from two distinct systems found in two distinct documents. *Id.* Specifically, the Challenged Claims combine features from (i) client application 203, which interacts with digital data capture device 201 (disclosed in priority application 12/333,303, which published as Singh129 (TTI-1009)), and (ii) a distinct “client application 202” (disclosed in an unrelated incorporated application 11/901,802, which published as Singh906 (TTI-1010)) that does not interact with a digital data capture device.

Client applications 202 and 203 are different software programs that address different perceived problems in the prior art. *Id.* Singh906’s client application

² In claim 12, this element is written as “[a] mobile software application for a Bluetooth enabled cellular phone comprising executable program instructions that, when executed by the processor controls the processor to.”

202, for example, addresses the purported “unmet need for a method and system to create and publish multimedia content online using a *single* device.” TTI-1010, [0003]. In contrast, Singh129’s client application 203 addresses the purported “need for a method and system to utilize a [separate] digital capture device *in conjunction with* a mobile device for automatically detecting capture of data and multimedia content, transferring the captured data and multimedia content to the mobile device, and publishing the data and multimedia content on one or more websites automatically.” TTI-1009, [0005]. Moreover, the two applications are clearly directed toward dramatically different users—*i.e.*, those that create content with their phones (Singh906’s client application 202) and those that create content with a separate digital capture device (the client application 203) while using a phone to provide an internet connection. TTI-1030, [103].

The differences between the two applications are myriad. For example, unlike Singh906’s client application 202, Singh129’s client application 203 does not: (i) provide targeted advertising; (ii) provide authentication credentials or global positioning system codes; (iii) allow the user to identify as publication destinations: meta-destinations, other users, email and phone numbers; or (vi) allow the user capture/edit/review multimedia using the mobile device itself. *Id.* In fact, instead of allowing the user to review/delete media on their phone, as is done with Singh906’s client application 202, Singh129’s client application 203

automatically publishes images to websites. *Id.* Furthermore, Singh129 expressly teaches that using client application 203 to “shar[e] information over electronic mail (emails),” as is done with Singh906’s client application 202, “may be inconvenient.” TTI-1009, [0045].

Similarly, unlike Singh129’s client application 203, Singh906’s client application 202 does not detect, receive, store, or transfer data acquired in a Bluetooth enabled data capture device and it does not include a timer module for setting the time to automatically publish multimedia content. TTI-1030, [105]. Moreover, there is no indication that Singh906’s mobile device is a Bluetooth enabled cellular phone and thus no indication that Singh906’s client application 202 would have been capable of detecting or receiving data acquired in a Bluetooth enabled data capture device, much less in the specific way claimed in the ’121 patent. *Id.* In any event, receiving data from a separate data capture device would have been inconsistent with the stated purpose of Singh906’s client application 202 to create and publish multimedia content using a **single** device. TTI-1010, [0003].

Notwithstanding the differences between these embodiments, claim 1 of the ’121 patent recites the following limitations: “wherein the user preference comprises global positioning system information;” “wherein the single mobile client application for the cryptographically authenticated short-range wireless enabled cellular phone stores a user authentication credential in the memory device

of the cryptographically authenticated short-range wireless enabled cellular phone;” and “use HTTP to upload ... the user authentication credential to a user data publishing website over a cellular data network.” Essentially the same limitations are included in each of the other independent claims. TTI-1030, [107].

However, there is no description in the priority applications of the claimed client application using HTTP to upload such user information or global positioning information to a user data publishing website or using user information to publish the new data for private consumption. Indeed, the only examples in the specification itself of information provided by the user are: (1) websites selected for publishing; and (2) timer and action settings.

Not surprisingly, during prosecution of the '121 patent, the examiner correctly noted that the specification “fails to sufficiently point out or describe ... *wherein the user preferences comprise authentication credentials and global positioning information.*” TTI-1006, 310, 241 (further noting that “the applicant fails to sufficiently point out or describe ... *wherein the user preferences comprise authentication credentials and use HTTP to send global positioning system information to the user data publishing website over the cellular data network*”) (emphasis original).

As support for these limitations, Patent Owner directed the examiner only to U.S. Pat. App. No. 11/901,802, which is incorporated by referenced into the

priority applications and published as Singh906. TTI-1006, 257, 179.

Therefore, these disclosures in the '802 application are “essential material” necessary to satisfy 35 U.S.C. § 112. *See* 37 C.F.R. § 1.57(d)(1)–(3). But, essential material can only be incorporated by reference “by way of . . . a *U.S. patent or U.S. patent application publication*,” not by incorporation of an unpublished application like the '802 application. *See id.* § 1.57(d) (emphasis added). As such, the incorporation of the '802 application is not effective to support the claims of the '121 patent, even assuming the material had supported the claims (it did not). *Id.* § 1.57(h); *see also SharkNinja*, IPR2020-00733, Paper 31 at 19. The '802 application is undeniably not a “U.S. patent or U.S. patent application publication.” And, if Patent Owner desired to rely on the disclosure of Singh906 to support the Challenged Claims, it was Patent Owner’s obligation to amend the specification of the '121 patent to cite Singh906 during prosecution. It did not do so. The interested public would therefore rely on the incorporation as written and would understand that nothing in the '802 patent.

Furthermore, there is no disclosure in any priority application directing a skilled artisan to use any of Singh906’s features in Singh129’s client application 203, much less use the specific features recited in the Challenged Claims. TTI-1030, [116]. The bald incorporation in effect was no more meaningful than taking the old application and stapling it to the back of the current application.

Thus, although it would have been obvious to combine the disclosures of Singh129 and Singh906 as explained in Ground 2, the priority specification (Singh129 is representative) fails to disclose the subject matter claimed in the manner arranged in the claims.³ *See, e.g., Intuitive Surgical, Inc. v. Ethicon LLC*, IPR2019-01110, Paper 30 at 10-15 (P.T.A.B Nov. 20, 2020) (rejecting the mixing and matching of embodiments without a disclosure directing the reader to do so); *see also Research Corp.*, 627 F.3d at 870 (“Entitlement to a filing date extends only to the subject matter that is disclosed; not to that which is obvious.”); *Lockwood*, 107 F.3d at 1571-72 (similar).

For each of these reasons, the priority date for the ’121 patent is no earlier than the filing date of the ’121 patent, which is August 6, 2019. *See Arthrex, Inc. v. Smith & Nephew, Inc.*, 35 F.4th 1328, 1344 (Fed. Cir. 2022) (confirming the Board’s statutory authority to decide priority).

³ Likewise, the ’802 application is missing most of the limitations of the claims, such as the data capture device, signal to notify, short-range wireless communications, paired wireless connection with cryptographic authentication, and others. TTI-1030, [110].

VI. THE CHALLENGED CLAIMS ARE UNPATENTABLE

A. GROUND 1—Claims 1-10 Are Obvious Over Hiroishi, Kahn, Endsley, and Bluetooth

1. Hiroishi

Hiroishi is a Japanese patent application published on February 28, 2003.

Hiroishi, Face. Hiroishi teaches a system that allows users to use a mobile phone to control a digital camera remotely. *See, e.g.*, TTI-1011, Abstract, [0043], [0053], [0061]. In addition, Hiroishi discloses the mobile phone 40 and the digital camera 50 communicate through Bluetooth. *Id.*, [0066]-[0067], [0121].

In operation, a release instruction is sent by the mobile device, which causes the camera to acquire and store new photographs. *See, e.g., id.*, [0078], [0098], [0115]. The camera also transmits a thumbnail of the image to the mobile device. *Id.*, [0081]-[0082]. Once received, the mobile device may then upload the image to another computing device. *Id.*, [0044], [0108]-[0115]; *see also* TTI-1030, [122]-[125].

2. Kahn

U.S. Patent Application Publication 2004/0004737 to Kahn et al. (“Kahn”), titled, “Imaging System Providing Automated Fulfillment of Image Photofinishing Based on Location,” was filed on July 2, 2002 and published on January 8, 2004. TTI-1017, Face.

Kahn teaches an imaging system that includes a camera coupled to a cellular

phone by a wireless connection. *See, e.g.*, TTI-1017, [0055], FIG. 3. Kahn teaches that the “camera device 310 is preferably a wireless camera device, such as camera device 100 (shown in FIG. 1A).” *Id.* The cellular phone can be a “host device” for the camera. *Id.* The cellular phone includes a global positioning module 325. The cellular phone determines a location ID, which is GPS derived longitude and latitude, and sends the location ID with the images to the image server. *Id.*, [0058]. The server can use “the location information may be used to offer location-dependent promotions to the user.” *Id.*, [0051]

In addition, Kahn teaches that the host device (i.e., the cellular phone) “communicates with an online Web-based image management server 330” using, for example, “HTTP protocol.” *Id.*, [0056]; *see also* TTI-1030, [130]-[132].

3. Endsley

U.S. Patent Application Publication No. 2006/0139474 to Endsley is titled “System and Camera for Transferring Digital Images to a Service Provider.” Endsley was filed on February 16, 2006 and was published on June 29, 2006. TTI-1024, Face. Generally, Endsley is about “a digital camera system which allows for automatically transferring digital image data.” *Id.*, [0009].

In Endsley, a digital camera can be used to capture images. *Id.*, [0027]-[0028]. Endsley notes that in prior art systems, cameras or camera memory would need to be taken physically into a print shop or photofinisher to produce prints.

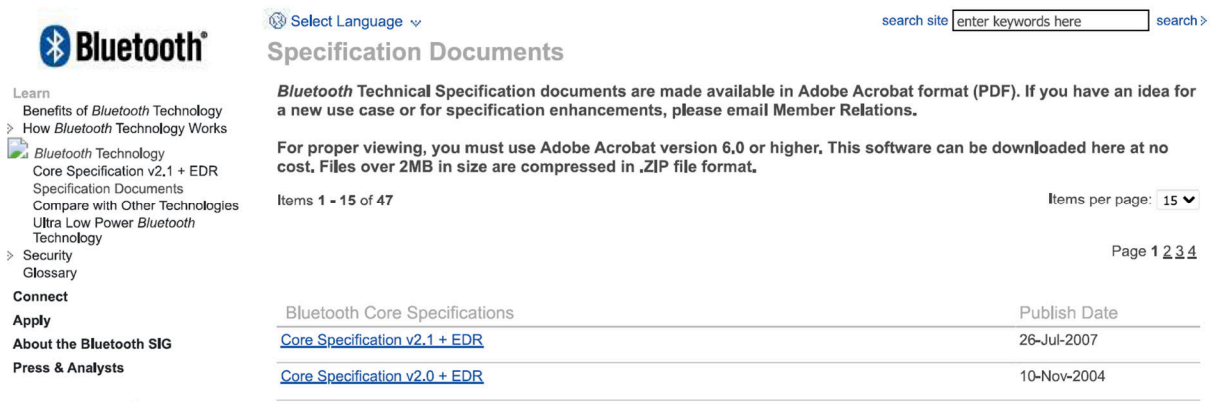
Id., [0004]-[0007]. Endsley teaches transferring the digital images to a remotely located site using a communications network. *Id.*, [0009], [0044]; *see also* TTI-1030, [133]-[134].

4. Bluetooth

As of the alleged Critical Date, Bluetooth wireless technology (BT), had established its role in replacing cables for personal device interconnectivity and facilitating spontaneous communication between devices within a localized “communications bubble.” TTI-1032, 1-2. The Bluetooth Overview discloses that Bluetooth’s aim was to provide a universal, user-friendly interface for data services, enabling ad hoc connectivity and serving as a personal gateway for accessing remote services while maintaining convenience and privacy. TTI-1032, 1-2; TTI-1019, 1, 89, 126. “Connecting to data services through one’s cellular phone gives rise to the concept of a personal gateway. People will carry their personal gateways wherever they go.” TTI-1032, 1. The Bluetooth specification details security implementation at both link and application layers, with cryptographic authentication through LMP Pairing and Secure Simple Pairing methods. *See, e.g.*, TTI-1019, 131, 1260. Cryptographic authentication was routine pre-dating the patent’s Critical Date TTI-1019, 412. Bluetooth’s packet format allows flexible payload transportation, enabling image transfer. TTI-1019, 293. Event listening/notification mechanisms like polling and sniff mode are

defined in the Bluetooth specification. TTI-1019, 331-332.

Bluetooth technology was available before the critical date of the patent, as supported by various pieces of evidence. TTI-1019, 1; TTI-1030, [47]-[60], . First, the face of the Bluetooth Core Specification V2.1 provides publication date as July 26, 2007. Second, the same Bluetooth Core Specification V2.1 was provided as an exhibit by the Patent Owner in two IPR proceedings (IPR2019-00127 as Ex. 2018 and IPR2019-00131 as Ex. 2006), both involving U.S. Patent 9,258,698 (a family member of the '121 patent). Third, the WayBack Machine contains an archived webpage in October, 2007, confirming the publication of the Bluetooth Core Specification V2.1 on July 26, 2007, and its public accessibility by no later than October, 2007. TTI-1031, 1. The content of the page is credible as it mentions Bluetooth 2.1 as the latest available release and thus predates the release of Bluetooth 2.2.



The screenshot shows the Bluetooth website's 'Specification Documents' section. It includes a search bar, a list of documents, and a table of specifications.

Bluetooth Core Specifications	Publish Date
Core Specification v2.1 + EDR	26-Jul-2007
Core Specification v2.0 + EDR	10-Nov-2004

TTI-1031, 1 (annotated). Finally, the '121 patent relies on pre-existing Bluetooth technology and thus acknowledges that Bluetooth is prior art. TTI-1005,

2:23; *see also* TTI-1030, [47]-[60].

5. The Predictable Hiroishi-Kahn-Endsley-Bluetooth Combination

In the proposed combination, as described by Hiroishi, a photograph system that includes a cellular phone that connects to a camera via a Bluetooth connection. *See, e.g.*, TTI-1011, [0042], [0066]-[0067]. The cellular phone controls the camera to capture images, store images, and transmit images to the cellular phone. *See, e.g., id.*, [0068], [0078]-[0079], [0108]-[0115]. The cellular phone then transmits images to a remote computer destination by a cellular network connection via the Internet. *Id.*, [0105]-[0112]. In the combination, the mobile phone is configured, as taught by Kahn, to use HTTP to send images, a user authentication credential, and a user preference that includes GPS information. TTI-1030, [826]. Also, in the combination, the timing of the transmission of the images to the print shop (or other remote terminal) as described by Hiroishi is controlled based on a determination of a time period for transmission, in manner similar to what is described by Endsley. *Id.*

If necessary, in the combination, the cellular phone uses a touch-based GUI and/or a timestamp signal sent from the digital camera to the mobile phone corresponding to the acquired new-data as taught by Kahn. *Id.*, [827]. In the combination, the mobile phone transfers the images with the timestamp to the

remote terminals using a packet compliant with HTTP, which requires that the mobile phone process the timestamp to create the HTTP compliant packet. *Id.*

6. Motivation to Combination

A POSITA at the time of the invention would have been motivated to combine the teachings of Hiroishi, Kahn, and Endsley thus rendering the subject matter of the '121 patent challenged claims (claims 1-10) obvious. *Id.*, [828]-[845].

First, both Hiroishi and Kahn are analogous art to the claimed invention. *Id.*, [828]-[845]. Both references are from the same field of endeavor as the claimed invention: wireless image transfer from one electronic device to another. *Id.* Hiroishi teaches techniques for enabling a mobile device to control a digital camera and transfer image files between and instructions between the two devices. *See, e.g.*, TTI-1011, Abstract, [0043], [0053], [0068]. Kahn is directed to wirelessly transferring image files from a mobile device to a publishing website over the Internet using HTTP. *See, e.g.*, TTI-1017, [0056], [0077].

Hiroishi and Kahn are also pertinent to the problem of the '121 patent: transmission of image data by a cellular phone that was captured by a digital camera. TTI-1005, Background; TTI-1030, [828]-[845]. Hiroishi addresses this problem through Bluetooth wireless data transmission and software-based control of the digital camera from the mobile device. *See, e.g.*, TTI-1011, [0004], [0043],

[0053], [0061]. Kahn addresses the problem through efficient publishing of image data from a cellular phone to a website using HTTP. *See, e.g.*, TTI-1017, [0056], [0063].

Second, a POSITA would have been motivated to use Kahn's upload technique to publish image data received at the mobile device of Hiroishi. TTI-1030, [828]-[845]. At the time of the alleged Critical Date, photo-sharing websites and personal blogs had become ubiquitous. *See, e.g.*, TTI-1020, 3:25-49, 4:47-67; TTI-1021, 5:49-56 (describing use HTTP to send images from the phone to the server). Websites like FLICKR, PHOTOBUCKET, and PICASA allowed users to publish photographs and share them with friends, colleagues, and internet users. *See, e.g.*, TTI-1018, 5:25-28; TTI-1022, [0032].

Cellular phones had also become ubiquitous. TTI-1030, [828]-[845]. The original iPhone was released six months before the provisional filing date of the '121 patent (the iPhone was released on June 29, 2007), and years before that companies like Blackberry, Motorola, and Nokia had developed cellular phones that allowed users to transfer image data over the Internet. *See e.g.*, TTI-1011, [0015], [0047], FIG. 2. The '121 patent even refers to mobile phones as "ubiquitous." TTI-1005, 10:15-16 ("The mobile device 202 may, for example, be a **ubiquitous mobile phone**.")) (emphasis added). Kahn also teaches a camera wirelessly connected to a mobile phone for capturing images and uploading images

to a remote server. *See, e.g.*, TTI-1017, [0045], [0055]-[0056].

Kahn recognizes both of these trends and teaches an efficient and predictable technique for uploading image data (captured by a camera) from a mobile device to a publishing website. *See, e.g.*, TTI-1017, [0057]-[0063].

The teachings of Kahn would have provided straightforward benefit to the user of the mobile device in Hiroishi: predictable upload of image files and an action setting using an existing HTTP connection between the mobile device and a remote (publishing) server. TTI-1030, [828]-[845]. Hiroishi already teaches the desire to transfer image data from a digital camera to a mobile device to a terminal device. *See, e.g.*, TTI-1011, [0044], [0082], [0107]. Kahn would have furthered this purpose by allowing the user to share image data over the Internet in a straightforward and well-known way. TTI-1030, [828]-[845].

Third, there would have been a reasonable expectation of success in combining the teachings of Hiroishi and Kahn. TTI-1030, [828]-[845]. The combination would have required simply packaging the image data from the mobile device of Hiroishi in an HTTP message as Kahn teaches and as what well known at the time for packet data transfer over the Internet. Both modifications would have been well within the ability of a POSITA. *Id.* It would also have been obvious to modify Hiroishi to send the action setting, such as the number of pages or schedule for pick-up, using HTTP, in a manner similar to that described by

Kahn. *Id.* To the extent that the action setting of Hiroishi is insufficient to meet the limitation, it would have been obvious to modify Hiroishi with an action setting, like that of Kahn. *Id.* For example, it would have been obvious to modify Hiroishi to send an action setting with the images using HTTP to create a new album for the images to be viewed at a friend's terminal or the user's terminal. *Id.* Doing so would have allowed the user to record the images remotely using the well-known and efficient Internet transfer protocol of HTTP used by Kahn. *Id.*

Fourth, a POSITA would have been motivated, and found it obvious, to store and send a user authentication credential with the images when transferring the images to the remote internet server as taught by Kahn. *See, e.g.*, TTI-1017, [0064], [0071], [0098]; TTI-1030, [828]-[845]. This way, a POSITA would recognize the advantage of being able to uniquely identify the owner of the images, e.g., using a database field for user *ID*. TTI-1017, [0098]. In the example scenario of Hiroishi's print shop, the print shop worker can quickly and easily identify the owner of the images by the file name, and can validate the owner when providing the printed images. Likewise, the fulfillment center worker of Kahn can easily identify the owner of the images.

A POSITA would have also been motivated to combine Hiroishi to include the location ID of the camera sent with the images to the remote server, in a manner similar to that taught by Kahn, which includes global positioning

information with the images transferred from the mobile phone to the server.

Hiroishi describes sending the images from the phone to a print shop. TTI-1030, [828]-[845]; *e.g.*, TTI-1011, [0049], [0110]. In the combination, a POSITA would have recognized the advantage of providing current location information to identify a print shop (Kahn's fulfillment center) that was close by. *See, e.g.*, TTI-1030, [828]-[845]; TTI-1017, [0094]; TTI-1011, [0122] ("the mobile phone 40 may be provided with a WWW (World Wide Web) browser, wherein this browser allows a user to search the terminal unit 20 installed at the print shop located at the location nearest to a photographing site and to order a print. This improves convenience since a print can be ordered from a nearby print shop"). Furthermore, a POSITA would have known the advantage of including location information with the images would add to the later viewing enjoyment of the pictures by the location reminder of each photograph. TTI-1030, [828]-[845]; TTI-1017, [0012] (describing the advantages of associating location information with images).

In addition, a POSITA would have been motivated to include location information from a global positioning system (GPS) module with the photographs to avoid later having to take steps to associate the photos with location information using a time-stamp method. TTI-1030; [828]-[845]; TTI-1017, [0060]. By associating the images with the GPS location information when they are taken, or shortly thereafter, the photograph system of Hiroishi would include the benefits of

location information with the images without adding steps requiring computational resources. TTI-1030, [828]-[845]. Likewise, performing the timestamp process would also introduce inaccuracies to the location association for the images. *Id.* By performing the location association when the images are taken, as suggested by Kahn, the location for each image would be more accurate. *Id.* The image locations would also be more specific. *Id.*; TTI-1017, [0065].

A POSITA would have found it obvious to modify Hiroishi to include timestamp information with the image data, as was a well known technique at the time. TTI-1030, [828]-[845]; TTI-1017, [0008] (describing “prior art imaging devices have only been able to record information about date/time (timestamp) that an image was captured”), [0060] (describing that “the image data already includes timestamp information (i.e., timestamp indicating when the image is captured”). Kahn makes it clear that timestamp information being included with image data was a well-known technique for recording the date and time of when an image was captured. TTI-1017, [0008], [0060]; TTI-1030, [828]-[845].

A POSITA would have been motivated to include the timestamp information with the image data of Hiroishi to record the date and time of when the images were captured. TTI-1030, [828]-[845]. The date and time would provide information to the user to later correlated images with when those images were taken, for posterity. *Id.* In addition, as explained by Kahn, the timestamp

information could also be used to correlate location information with the images, “by matching timestamps of the various images against the system’s time-correlated historical location information.” TTI-1017, [0060]. As already discussed, a POSITA would have known that having the location of the images would help in identifying a near-by print shop, in addition to enhancing the user’s photographing experience and memories. TTI-1030, [828]-[845].

A POSITA would recognize the benefits of a touch-based GUI, like that of Kahn, for operating the mobile phone to control the camera in Hiroishi. TTI-1030, [842]; TTI-1017, FIG. 5A-F. For example, a touch-based GUI would allow the selection of changing buttons faster. TTI-1030, [828]-[845]. The touch-based GUI would enhance the user experience. *Id.*

A POSITA would have found it obvious to modify Hiroishi to control the transfer of the images sent by the mobile phone of Hiroshi to the remote terminal based on a timer setting, as described in Endsley. *See, e.g.*, TTI-1030, [828]-[845]; TTI-1024, [0048], [0055]. In the combination, the transmission of the images to the print shop (or other remote terminal) as described by Hiroishi is delayed based on a determination of a time, in manner similar to what is described by Endsley. *Id.* In Endsley, the communication device can “wait to initiate data transfer until a predetermined time when transmission rates are low or use of the transmission network by the consumer is unlikely.” TTI-1024, [0055], [0048]. By waiting to

transmit the images to the print shop, the transmission of data can be accomplished “on the basis of lowest transmission rates, volume of data being received at the service provider, or unlikely utilization of the transmission network by the consumer.” *Id.*, [0055] (describing choosing transmission times (periods) that are “unlikely to interference with other consumer usage”). Put simply, a POSITA would have recognized that the transmission of images from the mobile phone to the remote terminal in Hiroishi would have benefited from choosing a transmission time that would result in lower transmission rates and higher likelihood of success. TTI-1030, [843].

A POSITA would have had a reasonable expectation of success implementing the transmission scheme in the combination because doing so would have relied on 1) an internal clock of the mobile phone, which was well known feature at the time; and 2) statistics and other telemetry about the network. TTI-1030, [828]-[845]. Endsley describes that the communication device would include an “internal clock” for transmitting data “at certain designated time periods.” TTI-1024, [0048]. For example, “data may be transmitted only at off hours . . . when transmission rates are low and there is a relatively lower chance of disruption to the user interference of the network system.” *Id.* (“It is of course understood that the communication device 20 may be programmed for allowing transmission during at [sic] any desired time period.”).

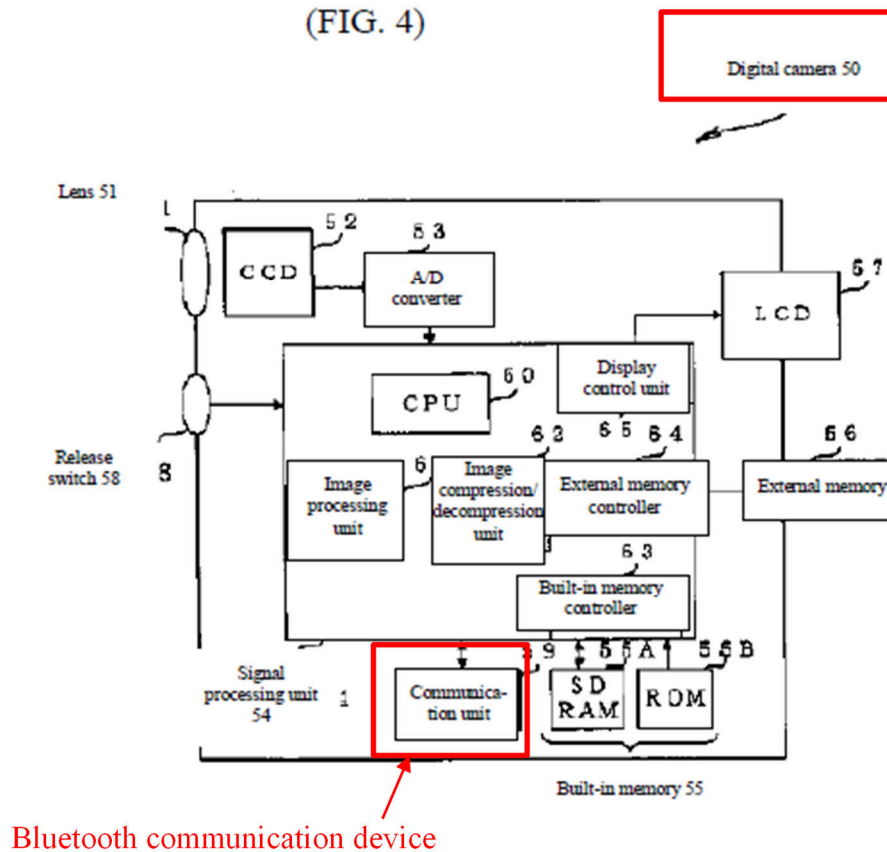
Finally, because Hiroishi relies on Bluetooth, a POSITA would have been motivated to look to Bluetooth (the Bluetooth standard 2.1) for more information on the implementation and features of Bluetooth. TTI-1030, [828]-[845]. To the extent that the Bluetooth features are not inherent or envisaged by a skilled artisan reading Hiroishi, it would have been obvious to use the details disclosed in Bluetooth with a system like Hiroishi, which states that Bluetooth is used for local wireless communication. *Id.* In the combination, a POSITA would use the features disclosed in Bluetooth. *Id.*

7. Analysis of the Claims

Claim 1

[1.P]

To the extent the preamble is limiting, the Hiroishi-Kahn-Endsley-Bluetooth combination (“Hiroishi-Kahn-Endsley-Bluetooth”) renders it obvious. TTI-1030, [919]-[920]. In the combination, Hiroishi teaches a short-range wireless (Bluetooth) enabled data capture device (the digital camera 50). *Id.*; TTI-1011, [0066]-[0067]; TTI-1019, 87.



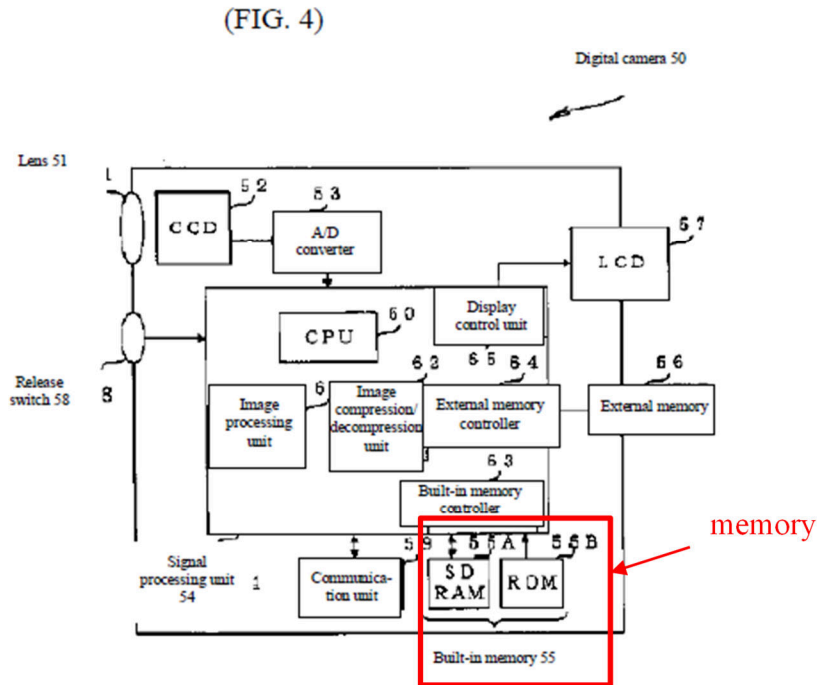
TTI-1011, FIG. 4 (annotated).

[1.1]

Hiroishi-Kahn-Endsley-Bluetooth renders obvious [1.1]. TTI-1030, [921].

In the combination, Hiroishi's camera includes a memory device 55, shown in FIG.

4 below:

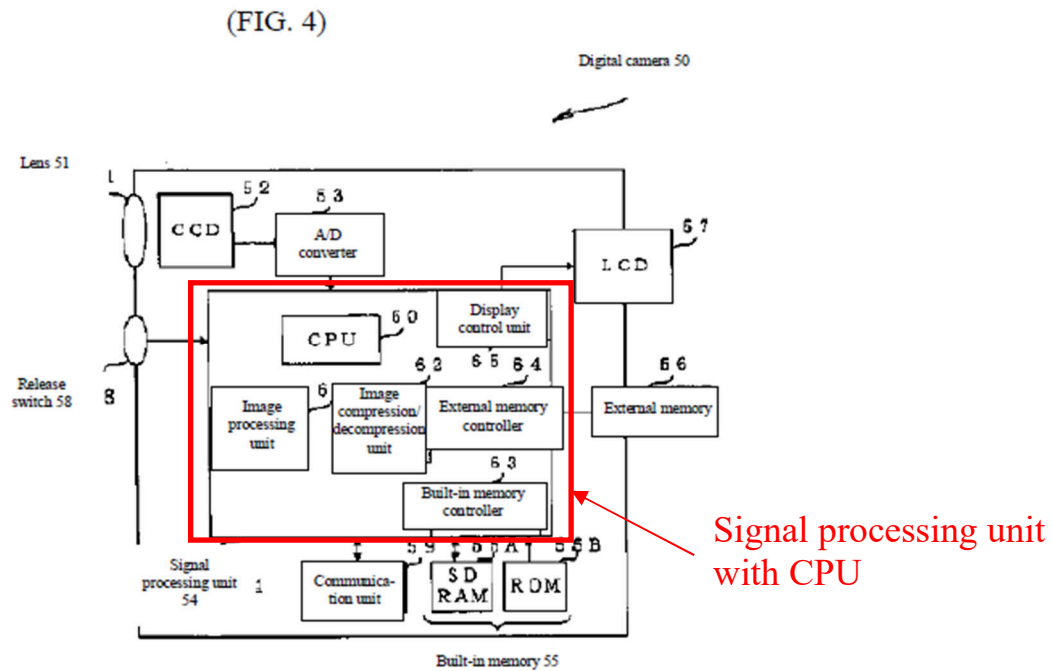


TTI-1011, FIG. 4 (annotated).

[1.2]

Hiroishi-Kahn-Endsley-Bluetooth renders obvious [1.2]. TTI-1030, [922].

In the combination, Hiroishi's camera includes a processor 54 and CPU 60 coupled to the memory device.

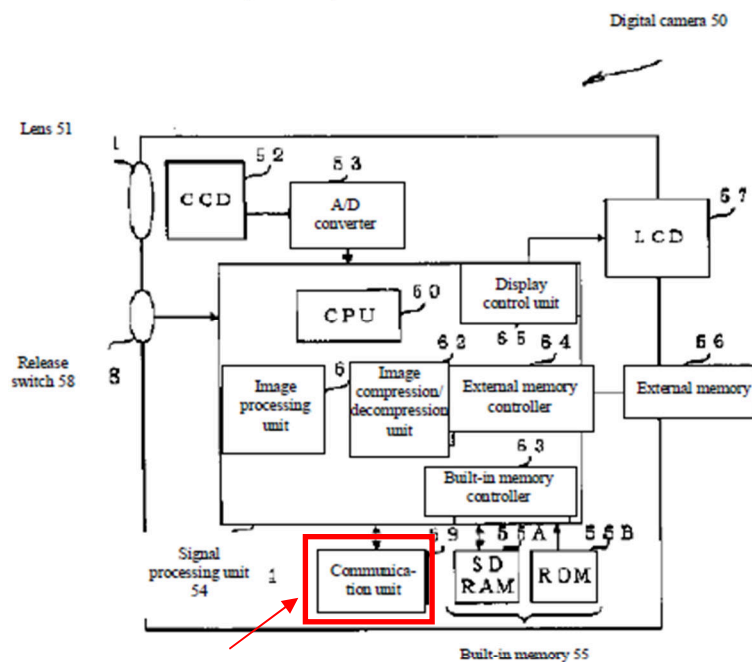


TTI-1011, FIG. 4 (annotated).

[1.3.1]

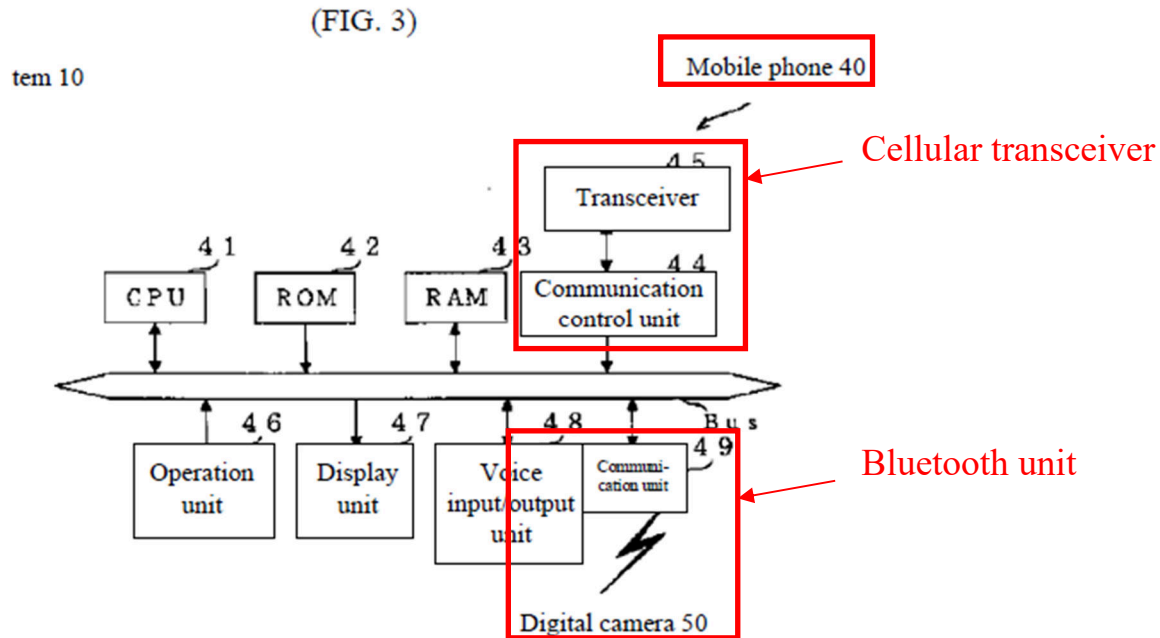
Hiroishi-Kahn-Endsley-Bluetooth renders obvious [1.3.1]. TTI-1030, [923]. In the combination, Hiroishi's camera includes a short-range wireless communication device ("communication unit 59") configured to establish a short-range paired wireless connection (a Bluetooth connection) between the short-range wireless enabled data capture device (camera 50) and a short-range wireless enabled cellular phone ("mobile phone 40"). TTI-1011, FIG. 1-3, [0043]-[0049], [0051]-[0052], [0058], [0066]-[0067], FIG. 4 (reproduced below); TTI-1019, 87.

(FIG. 4)



Short-range wireless communication device

TTI-1011, FIG. 4 (annotated).



TTI-1011, FIG. 3 (annotated)

[1.3.2]

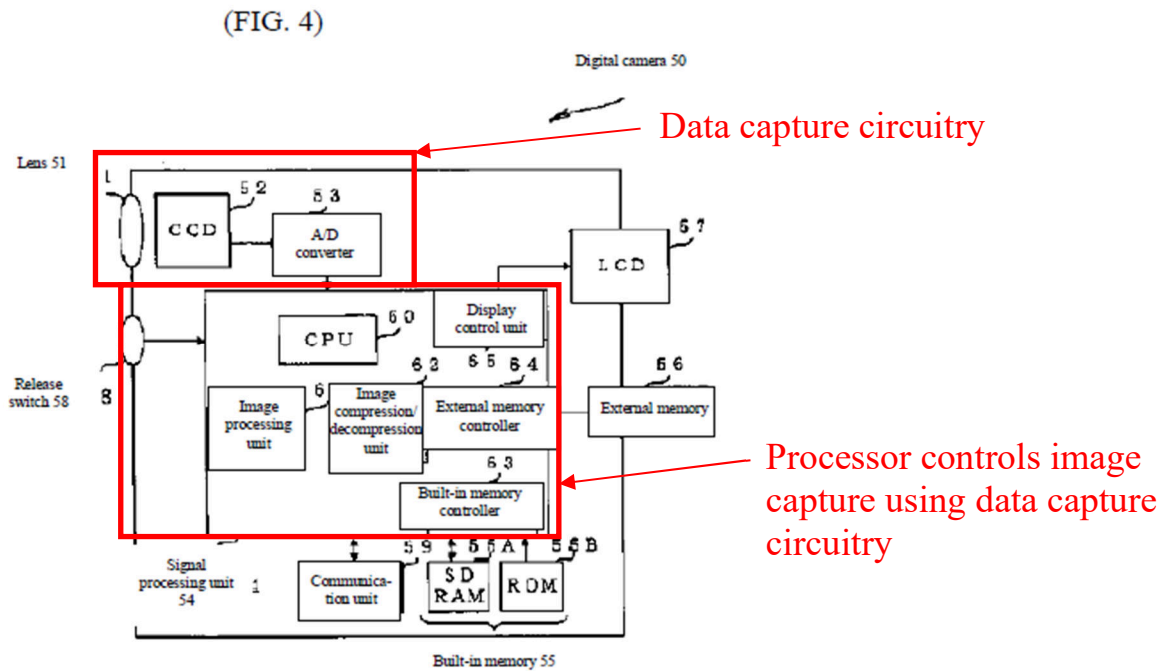
Hiroishi-Kahn-Endsley-Bluetooth renders [1.3.2] obvious. TTI-1030, [924]. In the combination, establishing the short-range paired wireless connection (the Bluetooth connection) comprises the data capture device (Hiroishi's camera 50) cryptographically authenticating the identity of the cellular phone (Hiroishi's mobile phone 40) as required by the Bluetooth protocol. *Id.* Hiroishi teaches that mobile phone 40 communicates with digital camera 50 using Bluetooth. *See, e.g.,* TTI-1011, [0067]-[0068]. Accordingly, a POSITA would have understood and immediately envisaged that camera 50 and mobile phone 40 are "paired." TTI-

1030, [924]. And cryptographically authenticating the identity of phone 40 was a required to pair Hiroishi's Bluetooth camera 50 and phone 40. *Id.*; TTI-1019, 410-412.

TTI-1019 describes the Bluetooth authentication procedure. Notably, the pairing process includes the exchange of BD_ADDR, which is a Bluetooth device identifier, along with an initialization key and PIN. TTI-1019, 410-412. As described in the Bluetooth Core Specification, Bluetooth pairing includes the creation of an initialization key (K_{init}) created based on a PIN, a random number, and a BD_ADDR, which is "used to identify a Bluetooth device." *Id.*, 89, 410-412; TTI-1030, [925]-[926].

[1.4]

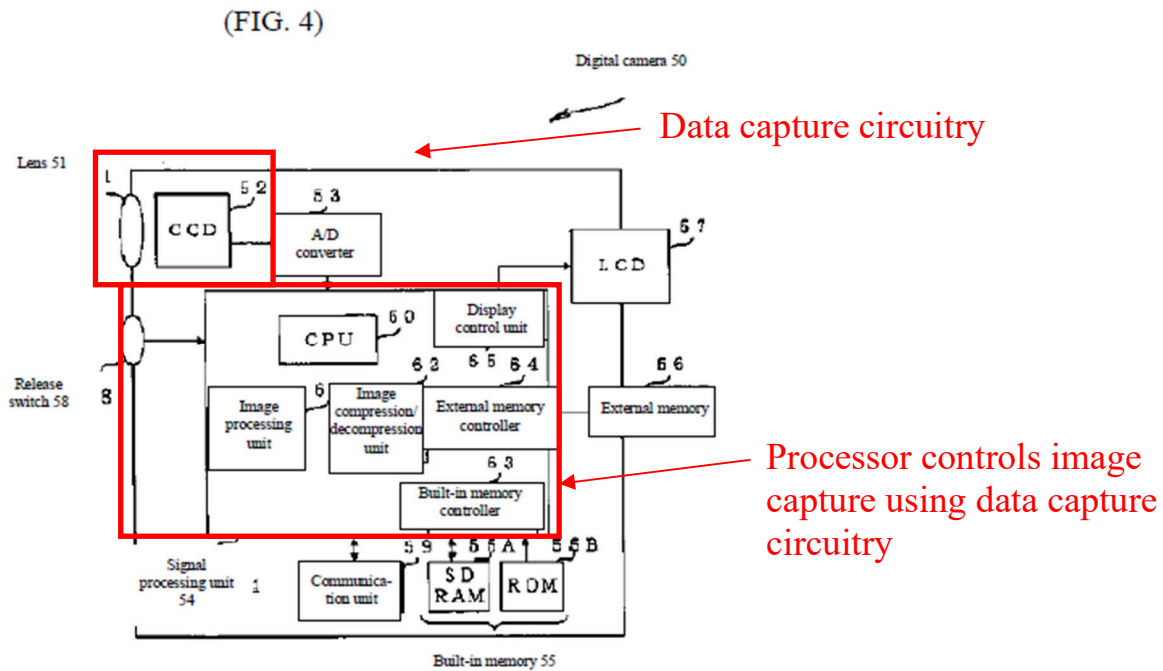
Hiroishi-Kahn-Endsley-Bluetooth renders obvious [1.4]. TTI-1030, [927]-[928]. In the combination, Hiroishi's camera includes data capture circuitry (a charge-coupled device (CCD) 52, and an analog-to-digital converter (A/D converter) 53). TTI-1011, [0055], [0070], FIG. 4.



TTI-1011, FIG. 4 (annotated).

[1.5.1]

Hiroishi-Kahn-Endsley-Bluetooth renders obvious [1.5.1]. TTI-1030, [929]-[933]. In the combination, Hiroishi's camera processor (CPU 60) is configured to acquire new data (photographs) using the data capture circuitry because it "is responsible for the entire operation of the digital camera 50." *Id.*; TTI-1011, [0059]; *see also id.*, [0068], [0071] (describing the "processing of the digital camera processing program executed by CPU 60" in FIG. 5), [0078]-[0079], FIG. 4.



TTI-1011, FIG. 4 (annotated).

[1.5.2]

Hiroishi-Kahn-Endsley-Bluetooth renders obvious [1.5.1]. TTI-1030, [929]-[940]. In the combination, the new-data (a photograph) is acquired after establishing the Bluetooth connection between camera 50 and phone 40. *Id.* Indeed, Hiroishi describes that camera 50 is controlled by the phone 40 using a remote operation. TTI-1011, [0043], [0053], [0068]. Specifically, phone 40 transmits across the Bluetooth connection a “release instruction” that causes camera 50 to acquire a new image. *Id.*, [0035], [0066], [0068], [0078]-[0079], [0095]-[0096]. Accordingly, a POSITA would have recognized that the image is acquired after establishing the Bluetooth connection. TTI-1030, [929]-[940].

[1.6]

Hiroishi-Kahn-Endsley-Bluetooth renders obvious [1.6]. TTI-1030, [941]. In the combination, Hiroishi's camera processor (CPU 60) is configured to store the new-data in the memory device. *Id.*; TTI-1011, [0078]-[0079], [0105]-[0106] (describing images stored in SDRAM 55A).

[1.7.1]

Hiroishi-Kahn-Endsley-Bluetooth renders [1.7.1] obvious. TTI-1030, [942-955.]-[854]. A POSITA would find it obvious that a thumbnail is transmitted with additional data that identifies the thumbnail. *Id.* Thus, a thumbnail and/or data related to the thumbnail would operate as a notification signal. In addition, this understanding extends beyond thumbnails or image metadata, such as timestamps, to encompass any signal notifying the cell phone of new image data ready for transfer from the camera. *Id.* Hiroishi's description of Bluetooth-based communication between a camera and a phone, along with the automatic generation and transmission of thumbnails as event notifications, supports this view. *Id.* Moreover, Kahn's teaching of timestamp inclusion with image data underscores the broader concept of event notifications automatically sent to the mobile phone. *Id.* Thus, a POSITA would readily recognize the concept of sending a signal to inspire the display of image-related data, whether thumbnails, timestamps, or any other indication of new data availability for transfer. *Id.*

Further, in the claim, the cellular phone listens for an event notification signal. The signal informs the cellular phone that new data is available. In the combination, there are a variety of signals that would perform the event notification function. *Id.* For example, Hiroishi sends thumbnails to the cellular phone. *See, e.g.*, TTI-1011, [0081]-[0082], [0104]-[0105]. Upon receipt of the thumbnails, the cellular phone is notified that the pictures represented by the thumbnails are available. *Id.* In addition, it would have been obvious to include header information, metadata, or some other information with the thumbnails or in addition to the thumbnails that informs the cellular phone of the nature of the received data—that new photos are available. TTI-1030, [942-955.]-[854]. A person of ordinary skill would have reason to provide an event notification or designate pre-existing data as an event notification so that the cellular phone is made aware that new data is available so that it may then take appropriate actions in response. *Id.* Because thumbnails provide a straight-forward event notification to the user, a person of ordinary skill would further use the thumbnails or associated metadata identifying the thumbnails as thumbnails as an event notification in the software running on the cellular phone. *Id.*

For example, in the combination, Hiroishi's camera processor is configured to send an event notification (thumbnails) and the acquired new data (image stored in camera memory) to the mobile phone automatically. *Id.*

Hiroishi's thumbnail transmission instruction is a request for an indication of the new data (images) stored in camera memory. *See, e.g.*, TTI-1011, [0081]-[0082], [0104]-[0105]. In response, the camera sends the thumbnails (event notifications) to the mobile phone, which detects the new data (images) stored in memory through the thumbnails provided to the client application and presented to the user on the GUI. *Id.*; TTI-1030, [944]. The thumbnails give the client application an indication of the images stored in memory (the new data). TTI-1030, [944].

In response to the thumbnail request, the camera automatically processes images stored on the camera memory to create the thumbnails, automatically packages the thumbnails for transmission across the Bluetooth link, and automatically transfers the thumbnails to the mobile phone. *Id.*; TTI-1011, [0081]-[0082]; TTI-1005, 4:60-67.

In Hiroishi, the thumbnails generated after the images are captured and stored on the camera's memory constitute an event notification because each thumbnail represents the event of an image having been captured by the camera. TTI-1030, [946]. Each thumbnail corresponds to new data acquired, particularly because, after sending the selected images to the user, the camera deletes the images stored in memory. *Id.*; TTI-1011, [0084], [0106]. Thus, the thumbnails represent only the new data, as opposed to old data. TTI-1030, [946]. The

thumbnails are a signal sent to the mobile phone by the camera. *Id.*; TTI-1011, [0081]-[0082], [0102]-[0105].

Bluetooth also discusses polling as an example of event notification. For example, polling is described in the active mode, i.e., where both the master and slave actively participate on the channel. TTI-1019, 331-332. Slaves in the active mode listen in the master-to-slave slots for packets. TTI-1019, 332.

In fact, the Bluetooth Core Specification defines a POLL type data packet that “does not have a payload”, “requires a confirmation from the recipient”, and “can be used by the master...to poll the slaves.” TTI-1019, 283.

Another example of event notification in the Bluetooth specification is sniff mode. Sniff mode is used to reduce power during an idle asynchronous connection as an alternative to constantly polling. TTI-1019, 345.

There is a clear process for enabling event listening using sniff mode. TTI-1019, 457.

Also, in Bluetooth, the transmission routine automatically sends data as long as the transmission buffers include data for transmission. *See, e.g.*, TTI-1019, 264 (4.5.1.1 ACL traffic). The Baseband Resource Manager loads new data information, and as long as the Baseband Resource Manager “keeps loading the registers with new information, the Link Controller will automatically transmit the payload.” *Id.* Thus, in Bluetooth, transmissions of payload are done

automatically.

In the combination, Hiroishi's mobile phone program sends the acquired new data automatically, where the selected images for transmission instruction constitutes the polling request. TTI-1030, [954]; TTI-1011, [0084], [0104]-[0106]. When the mobile phone sends the selected images for transmission instruction, the camera automatically processes the selected images and automatically transmits the images to the mobile phone across the Bluetooth connection. TTI-1011, [0084], [0104]-[0106].

In addition, or in the alternative, the camera sends a timestamp with the image data as taught by Kahn. *Id.*; TTI-1017, [0008], [0060]. According to the '030 patent, which shares the same specification and priority claim as the '121 patent, the event notification can be timestamp attribute inside the data object. *See, e.g.*, TTI-1001, cl.6. Thus, a POSITA would have recognized that a timestamp was an event notification. The timestamp would be used in the combination to inform the software that data, such as an image, is available. TTI-1030, [955].

[1.7.2]

Hiroishi-Kahn-Endsley-Bluetooth renders [1.7.2] obvious. TTI-1030, [956]. In the combination, the event notification (Hiroishi's thumbnail and/or Kahn's timestamp) corresponds to the acquired new-data (image) and comprises sending a signal (the signal transmitting the thumbnail, the response to the Bluetooth polling

request, and/or the timestamp) to Hiroishi's cellular phone 40. TTI-1011, [0081]-[0084], [0102]; TTI-1017, [0008], [0060]; *supra*, [1.7.1]. Hiroishi's thumbnail correspond to the image because it is a low-resolution version of the image, making it unique to each image. TTI-1030, [956]. And Kahn's timestamp corresponds to when the image is captured, making it unique to each image. *Id.*; TTI-1017, [0008], [0060].

[1.8]

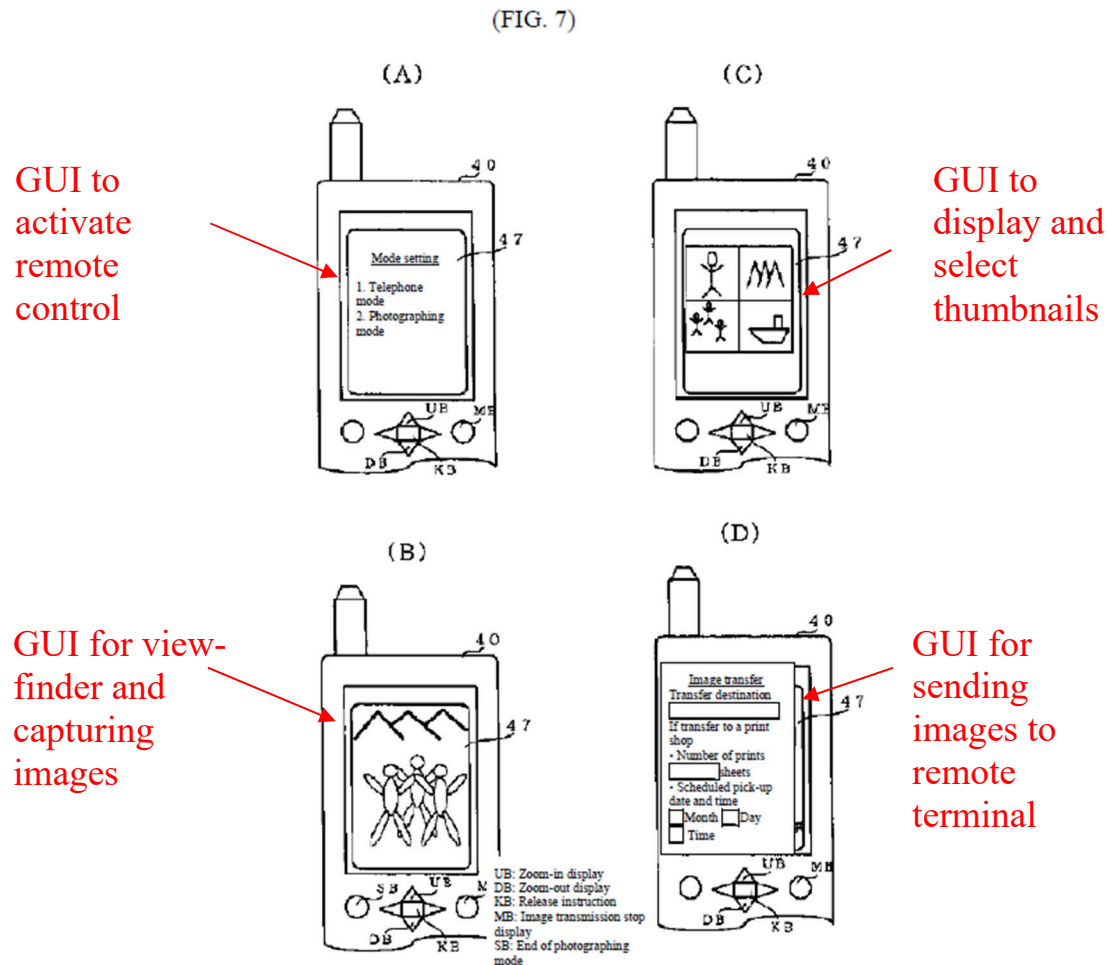
Hiroishi-Kahn-Endsley-Bluetooth renders [1.8] obvious. TTI-1030, [957]. In the combination, Hiroishi's phone 40 is configured to listen for the event notification (Hiroishi's thumbnail and/or Kahn's timestamp) and to receive the new data (images). *Id.* Hiroishi's phone 40 is configured to listen ("wait") for the thumbnail in response to the thumbnail request. TTI-1011, [0104]. Hiroishi's phone 40, which is a master device, is also configured to listen for responses to Bluetooth polling requests. TTI-1030, [957]; TTI-1019, 332. In the combination, responses to Bluetooth polling requests include a thumbnail and/or a timestamp. TTI-1030, [957]. In the combination, Hiroishi's phone 40 is further configured to receive the new-data (image) over the short-range paired wireless connection (Bluetooth). *Id.*; TTI-1011, [0066]-[0067] [0093], [0107].

[1.9.1]

Hiroishi-Kahn-Endsley-Bluetooth renders obvious [1.9.1]. TTI-1030, [958]-

[965]. In the combination, a single mobile client application (Hiroishi's program running on mobile phone 40) is configured to process the event notification (Hiroishi's thumbnail and/or the response to Hiroishi's Bluetooth polling request for the thumbnail) by displaying a thumbnail in an interactive fashion on the phone's GUI. *Id.*; TTI-1011, [0001], [0089]-[0108], FIGS. 7A-D.

Hiroishi's phone 40 includes "a program with which a photographer can simply and reliably captures a self-portrait." TTI-1011, [0001]; *see also id.*, [0089] (describing the program being "stored in advance in the predetermined region of ROM 42"), [0068] (describing several instructions that the program on the mobile phone sends to the camera). Hiroishi's program provides a GUI for viewing/selecting thumbnail images. TTI-1011, [0001], [0089]-[0108], FIGS. 7A-D.



As shown above, Hiroishi discloses that phone 40 receives a thumbnail from camera 50, that the GUI displays the thumbnail, and that the user can interact with the thumbnail to select new data (images) from the camera storage. TTI-1011, [0001], [0081]-[0082], [0104]-[0105], FIG. 7C. The organization, display, and interaction with the thumbnail involve processing the thumbnail (the event notifications). TTI-1030, [958]-[965].

In the combination, Hiroishi's phone program also processes the timestamp, as taught by Kahn, when it creates a new packet for transmission of the images to

the remote server using HTTP. TTI-1030, [958]-[965]; TTI-1017, [0008], [0056], [0060].

[1.9.2]

Hiroishi-Kahn-Endsley-Bluetooth renders [1.9.2] obvious. TTI-1030, [958]-[965]. In the combination, Hiroishi's phone program is configured to store the received new-data in a memory device (*e.g.*, RAM 43) of Hiroishi's cellular phone 40. *Id.*; TTI-1011, [0051] (RAM 43 is "used as a work area, or the like, at the time of execution of various control programs"); *see also* TTI-1011, [0013], [0070], [0011].

Hiroishi does not expressly teach that phone 40 stores images in its memory device. However, a POSITA would have understood and immediately envisaged that Hiroishi necessarily stores the image prior to the image being sent to the remote terminal. TTI-1030, [958]-[965]. Indeed, the processing steps of Hiroishi's phone 40 include a determination (or verification) that the phone received the image data prior to displaying the image transfer screen. *Id.*; TTI-1011, [0078], [0084], [0108]. Hiroishi teaches that images are received by the mobile phone at one point in time and are transmitted from the mobile at another point in time. TTI-1011, [0107]-[0108]. And the data received by Hiroishi's phone 40 over Bluetooth needed to be repackaged for transmission across Hiroishi's Personal Digital Cellular network. TTI-1030, [958]-[965]; TTI-1011,

[0048]. Accordingly, a POSITA would have recognized and immediately envisaged that Hiroishi's phone program is configured to store (either permanently or temporarily, e.g., in RAM 43) the image received from Hiroishi's camera 50 prior to phone 40 transmitting the image to the remote terminal. TTI-1030, [958]-[965]; TTI-1011, [0111] (describing the digital image data received is transmitted to the transfer destination); FIG. 6 element 238 (received image data).

To the extent it is not inherent to store the new data images, and a POSITA would not immediately envisage such storage, it would have been obvious for Hiroishi's camera program to store images in the phone's memory. TTI-1030, [958]-[965]. A POSITA would have immediately recognized the advantages of storing the storing the new data at the phone after receiving the new data and before sending the new data to the remote server. *Id.* The known benefits included: (1) local storage on the phone for later viewing; (2) rapid access of the images from local storage for transmission; (3) reducing in latency for obtaining images for transmission from, e.g., a remote storage area; (4) reducing in bandwidth or other network resources; and (5) facilitating the transition from Bluetooth packet to cellular data packet. *Id.*

A POSITA implementing Hiroishi would have had a reasonable expectation of success storing the new digital image data on the mobile phone, as was common at the time using RAM. TTI-1030, [958]-[965]. As noted above, Hiroishi's phone

40 already includes RAM 43, which would be used to store (at least temporarily) the image data on the mobile phone. *Id.* And, if necessary, adding additional memory to store one or more images was well within the level of skill in the art. *Id.*

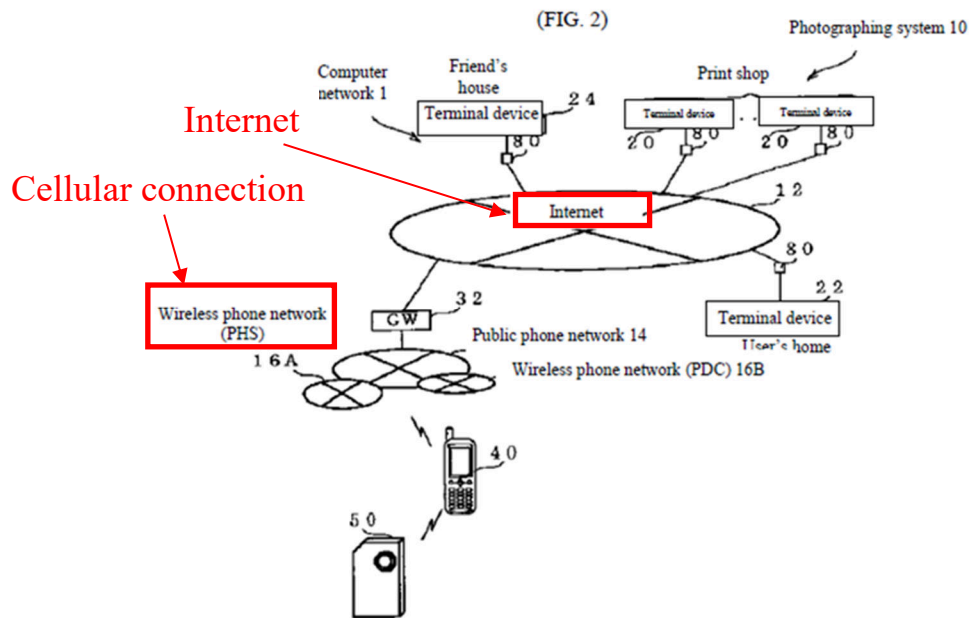
[1.10]

Hiroishi-Kahn-Endsley-Bluetooth renders obvious [1.10]. TTI-1030, [966]. In the combination, the single mobile client application (Hiroishi's phone program) stores a user authentication credential ("network access identifier or NAI (e.g., user cell phone number) and password") in the memory device as taught by Kahn. *Id.*; TTI-1017, [0064] ("upload program 410 assembles the image data for the images and the corresponding metadata comprising location information and user (identity) information, and then transmits all of that information/data to the image management server, via its communication with the server-side application 440"), [0082] ("the applet retrieves the NAI and password."), [0084] ("the password is stored as part of the applet data"); *see also* TTI-1017, [0071]-[0072], Figs. 5A-F and related descriptions. Indeed, Kahn's upload program 410 is analogous to Hiroishi's phone program. TTI-1030, [966].

[1.11]

Hiroishi-Kahn-Endsley-Bluetooth renders [1.11] obvious. TTI-1030, [967]. In the combination, the single mobile client application (Hiroishi's phone program

modified as taught by Kahn) is configured to use HTTP to upload the received new-data and the user authentication credential to the user data publishing web service over the cellular data. *Id.* Hiroishi's cellular phone 40 transfers images to one or more remote terminals across the Internet using a wireless cellular network. *Id.*; TTI-1011, [0047]-[0048], FIG. 2:



TTI-1011, FIG. 2 (annotated)

In the combination, Hiroishi's phone program uses HTTP to transfer Hiroishi's images and Kahn's authentication credentials to a remote terminal as taught by Kahn. TTI-1030, [967]. Kahn discloses that, "to communicate with the image management server 330, the host device [phone] 320 establishes an Internet

connection to the server, for example, using HTTP protocol.” TTI-1017, [0056]-[0057]; *see also id.*, Claim 12 (“transmitting the images from the imaging device to a corresponding user account on a Web server”). Additionally, Kahn specifies that a “user is given access to photos on the camera or on photo albums (e.g., online photos).” Kahn, [0074]. However, this access is contingent upon the validity of the user credentials. Kahn, [0082], [0084], FIG. 5C (elements 522, 526). For example, Kahn discloses that “the applet [at the cell phone] retrieves the NAI and password” from the cell phone’s memory and transmits the login credentials “to the photo site (Web-based server providing image management)” to determine the validity of the user credentials. Kahn, [0082].

[1.12]

Hiroishi-Kahn-Endsley-Bluetooth renders [1.12] obvious. TTI-1030, [968]. In the combination, Hiroishi’s phone program uploads the new-data and the user authentication credential based on a timer setting as taught by Endsley. *Id.* Endsley teaches that “the communication device 20 may wait to initiate data transfer until a predetermined time.” TTI-1024, [0055], [0048]. “For example, data may be transmitted only at off hours, (e.g. during the middle of the night). . . .” *Id.* By waiting until a predetermined time to automatically transmit the images Endsley teaches a timer setting that is “wait x minutes automatic.” *Id.*; TTI-1030, [968]. Alternatively, a POSITA would have been motivated to implement the

automatic uploading of images as soon as the camera is connected to the cell phone taught by Kahn. In the combination, Hiroishi's phone program can also upload the new-data and user authentication credentials automatically as taught by Kahn.

Kahn, [0064], [0082], [0084], FIG. 5C (elements 522, 526). By transmitting the images automatically, the combination of Kahn and Endsley teaches a timer setting that is "no wait automatic." TTI-1030, [968].

[1.13]

Hiroishi-Kahn-Endsley-Bluetooth renders obvious [1.13]. TTI-1030, [969]. In the combination, the single mobile client application (Hiroishi's phone program) is further configured to use HTTP to send a user preference comprising global positioning system information (GPS information as taught by Kahn) to the user data publishing web service over the cellular data network. *Id.*; TTI-1017, [0051], [0058], [0062], [0064], [0098]. As explained in Kahn, "location ID [*i.e.*, global positioning system] information may also be conveniently transmitted, either by attaching the information to the image data (e.g., as header information) and/or as a separate (auxiliary) data item." TTI-1017, [0058], [0098].

[1.14]

Hiroishi-Kahn-Endsley-Bluetooth renders obvious [1.14]. TTI-1030, [970]. In the combination, the single mobile client application (Hiroishi's phone program) provides a touch based GUI (Hiroishi's GUI that facilitates user interaction using

buttons) for the received new data. *Id.*; TTI-1011, [0090], [0095]-[0100], FIGS. 7A-D. Alternatively, Hiroishi's phone program provides a touch based GUI for the received new-data as taught by Kahn, which, like Hiroishi, discloses an interactive "user interface (UI)" with a screen that displays buttons that change depending on the screen. TTI-1017, FIGS. 5A-E.

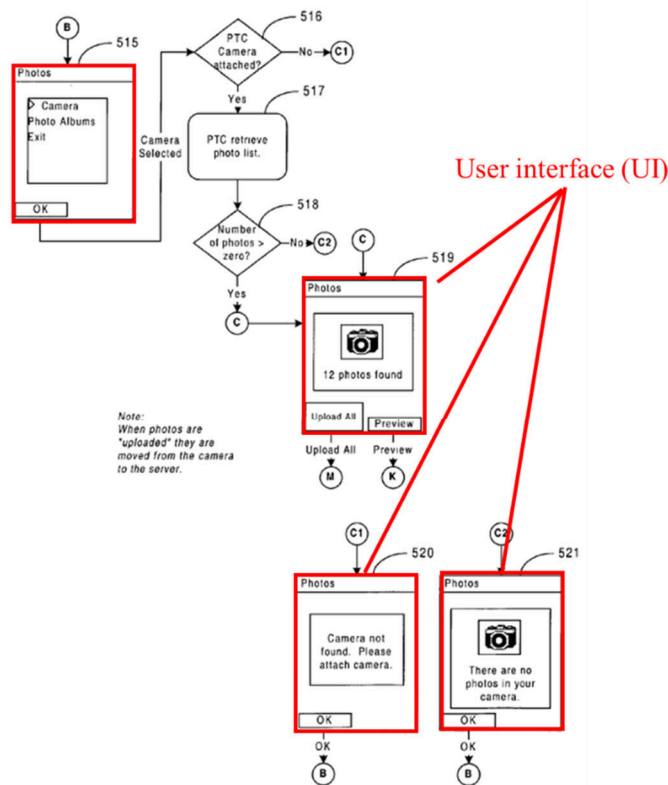


FIG. 5B

TTI-1017, FIG. 5B (annotated).

Notably, Kahn (at [0045]) discloses that the host device can be a PDA, like the Palm i705, which included a touch-screen display. TTI-1030, [970]; TTI-1029, [0009]. Moreover, a touch based GUI was a predictable and known solution to a

GUI and one that was becoming increasingly popular before the Critical Date, and it would have been obvious to implement a GUI using a touch based device.

[2]

See supra [1.3.1]-[1.3.2].

[3]

Hiroishi-Kahn-Endsley-Bluetooth renders obvious claim [3]. *See supra* [1.11]; TTI-1030, [971]. For example, Kahn teaches uploading images to an image server. *See, e.g.*, TTI-1017, [0056]-[0058]. Kahn teaches that images can be “published” in an album for the user. *Id.*, [0012], [0065], [0074], [0077], [0089], FIG. 6.

Claim 4

[4.P]

To the extent the preamble is limiting, Hiroishi-Kahn-Endsley-Bluetooth renders obvious [4.P]. TTI-1030, [989][. In the combination, Hiroishi teaches a “photographing system 10.” *Id.*; TTI-1011, [0047]-[0049], [0066]-[0067], FIGS. 1-2; *see supra* [1.P]-[1.3.1]; TTI-1030, [989].

[4.1]

See supra [1.P].

[4.2]

See supra [1.1].

[4.3]

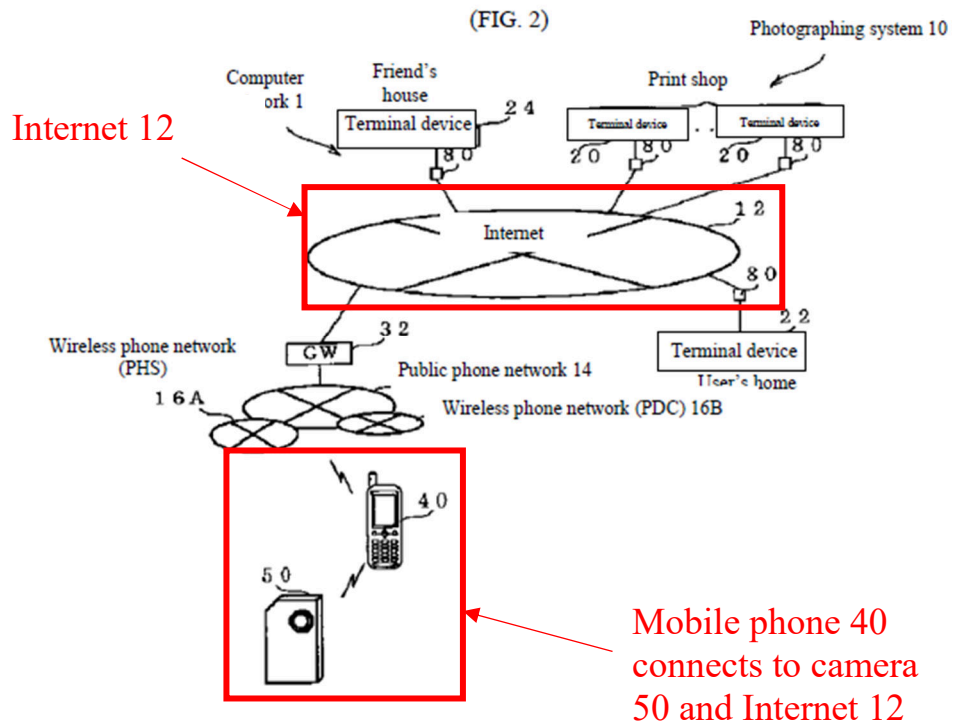
See supra [1.2].

[4.4.1]

See supra [1.3.1], TTI-1030, [993]-[994].

[4.4.2]

Hiroishi-Kahn-Endsley-Bluetooth renders obvious [4.4.2]. TTI-1030, [993]-[994]. In the combination, the cellular phone (Hiroishi's mobile phone 40) is internet enabled. *Id.*; Hiroishi, [0052] (confirming that Hiroishi's phone 40 includes a "communication control unit 44" that is "connected to a transceiver 45 for modulating ... packet information"). Hiroishi's phone 40 includes a web browser. *Id.*, [0122]. And, as shown in FIG. 2, Hiroishi's "computer network 1 comprises the Internet 12." Hiroishi, [0047].



TTI-1011, FIG. 2 (annotated).

[4.4.3]

See supra [1.3.2], TTI-1030, [993]-[994].

[4.5]

See supra [1.4].

[4.6.1]-[4.6.2]

See supra [1.5.1]-[1.5.2].

[4.7]

See supra [1.6].

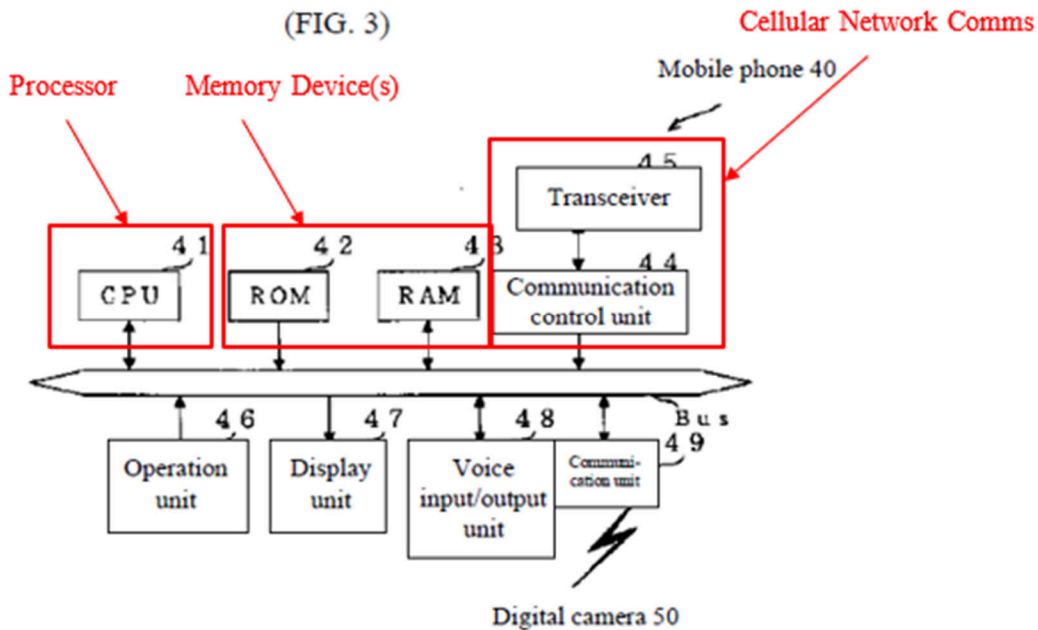
[4.8.1]-[4.8.2]

See supra [1.7.1]-[1.7.2].

[4.9]-[4.10]

See supra [1.3.1], [1.9.2].

In the combination, Hiroishi's phone 40 includes a memory device (RAM 43) and a processor (CPU 41) coupled to the memory device. TTI-1030, [999]-[1000]; TTI-1011, [0051], FIG. 3.



TTI-1011, FIG. 3.

[4.11]

See supra [1.3.1], [4.4.2].

[4.12]

See supra [1.3.1].

[4.13]

See supra [1.9.1].

[4.14.1]-[4.14.2]

See supra [1.8]-[1.9.1].

[4.15]

See supra [1.8].

[4.16]

See supra [1.9.2].

[4.17]

See supra [1.10].

[4.18.1]-[4.18.2]

See supra [1.11]-[1.12].

[4.19]

See supra [1.13].

[4.20]

See supra [1.14].

Claim 5

See supra claim 2.

Claim 6

See supra claim 3.

Claim 7

[7.P]

See supra [4.8], TTI-1030, [846]-[849].

[7.1]

See supra [4.9], TTI-1030, [850]-[851].

[7.2]

See supra [4.10], TTI-1030, [852]-[853].

[7.3]

See supra [4.11], TTI-1030, [854]-[858].

[7.4.1]

See supra [4.12], TTI-1030, [859]-[866].

[7.4.2]

See supra [1.3.2], TTI-1030, [867]-[870].

[7.5]

See supra [4.13], TTI-1030, [871]-[873].

[7.6.1]

See supra [1.7.2]-[1.8], [4.14.1], TTI-1030, [874]-[882].

[7.6.2]

See supra [1.5.1]-[1.5.2], TTI-1030, [874]-[884].

[7.7]

See supra [1.8], TTI-1030, [885]-[888].

[7.8.1]-[7.8.2]

See supra [1.9.1]-[1.9.2], TTI-1030, [889]-[898].

[7.9]

See supra [1.10], TTI-1030, [899].

[7.10.1]-[7.10.2]

See supra [1.13], TTI-1030, [900]-[906].

[7.11.1]

See supra [1.11]; TTI-1030, [909]-[911].

[7.11.2]

See supra [1.12], TTI-1030, [912]-[914].

[7.12]

See supra [1.14], TTI-1030, [915].

[8]

See supra claim 2.

Claim 9

[9.P]

See supra [1.P].

[9.1]

See supra [1.1].

[9.2]

See supra [1.2].

[9.3.1]-[9.3.2]

See supra [1.3.1]-[1.3.2].

[9.4]

See supra [1.4].

[9.5.1]-[9.5.2]

See supra [1.5.1]-[1.5.2].

[9.6]

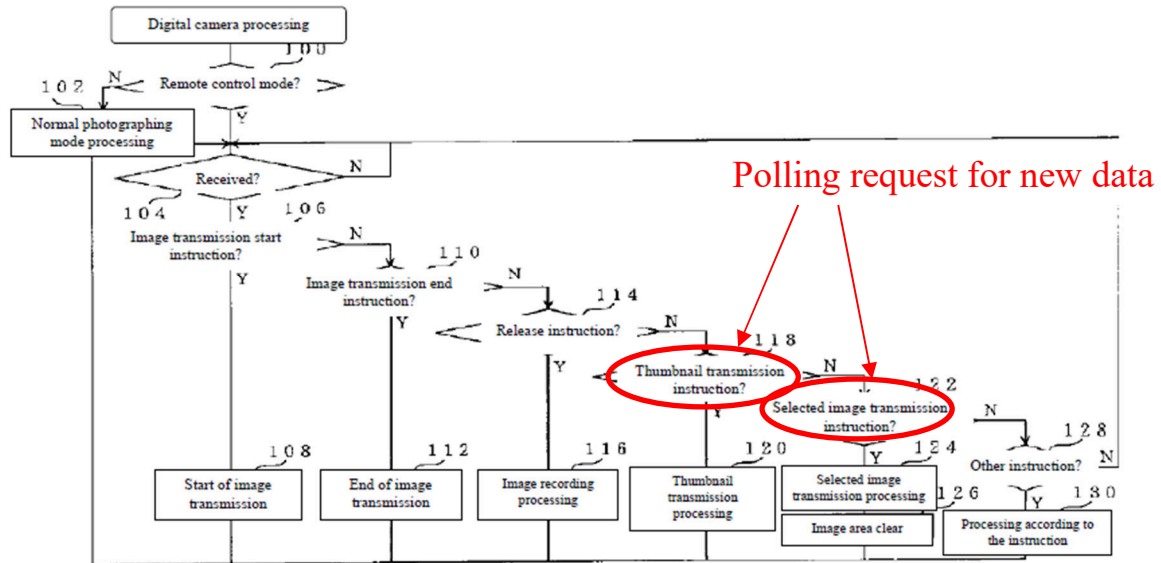
See supra [1.6].

[9.7.1]-[9.7.2]

See supra, [1.7.1]-[1.8].

The Hiroishi-Kahn combination renders obvious [9.7.1]-[9.7.2]. TTI-1030, [979]-[985]. In the combination, Hiroishi's camera processor is configured to listen to a polling request (thumbnail transmission instruction or selected images for transmission instruction) from the single mobile client application on the mobile phone. *Id.* Specifically, Hiroishi teaches that the camera is controlled by operations sent by the mobile phone. *See, e.g.*, TTI-1011, [0043], [0053], [0068] (listing instructions sent to camera from mobile phone during remote mode of operation). As shown below in FIG. 5, the camera listens for an instruction (polling request) from the mobile phone, including an instruction for the new data (the image stored in memory).

(FIG. 5)



TTI-1011, FIG. 5 (annotated).

In one example, Hiroishi's thumbnail transmission instruction is a polling request for the new data (images stored in camera memory). TTI-1030, [979]-[985]. The thumbnail transmission instruction requests the camera to send an indication of the new data captured by the camera and stored in memory. *Id.*; TTI-1011, [0081]-[0082], [0104]-[0105]. In response, the camera sends the thumbnails to the mobile phone, which detects the new data (images) stored in memory through the thumbnails provided to the client application and presented to the user on the GUI. *Id.* The thumbnails give the user and the client application an indication (or detection) of the images stored in memory (the new data). *Id.*

In another example, the selected images for transmission instruction constitutes the polling request. TTI-1030, [979]-[985]; TTI-1011, [0084], [0104]-[0106]. When the mobile phone sends the selected images for transmission instruction, the camera automatically processes the selected images and automatically transmits the images to the mobile phone across the Bluetooth connection. *Id.*

In the combination, Hiroishi's program running on the mobile phone operates to send the polling request message, as required by the claim. TTI-1030, [979]-[985]. However, Patent Owner appears to assert that the claimed polling request is an "inherent" feature of Bluetooth. *See, e.g.*, TTI-1036, 1768-1773. To the extent Patent Owner's assertions are adopted, Hiroishi also discloses this limitation because it uses Bluetooth, which includes polling, to transmit the new data from camera 50 to phone 40. TTI-1030, [979]-[985]; TTI-1011, [0066]-[0067]; TTI-1019, 332.

[9.8]

See supra [1.8]-[1.9.1], [9.7].

The Hiroishi-Kahn-Endsley-Bluetooth combination renders obvious [9.8]. TTI-1030, [983]-[985]. In the combination, the single mobile client application (Hiroishi's phone program) is configured to detect the new-data (image) for transfer from the data capture device to the cellular phone when it receives a

thumbnail of the image or the image itself, wherein the detecting comprises polling (sending a thumbnail or image request to) the data capture device by the cellular phone, over the established paired short-range wireless connection (Bluetooth).

Id.; TTI-1011, [0066]-[0067], [0084], [0104]-[0106], FIG. 7C.

In the combination, Hiroishi's program running on the mobile phone operates to send the polling request message, as required by the claim. TTI-1030, [983]-[985]. However, Patent Owner appears to assert that the claimed polling is an "inherent" feature of Bluetooth. TTI-1036, 1768-1773. To the extent Patent Owner's assertions are adopted, Hiroishi also discloses this limitation because it uses Bluetooth, which includes polling, to detect the new-data. TTI-1030, [983]-[985]; TTI-1011, [0066]-[0067]; TTI-1019, 332.

[9.9]

See supra, [1.7.1].

[9.10]

See supra [1.8].

[9.11]

See supra [1.9.2].

[9.12]

See supra [1.10].

[9.13]

See supra [1.13].

[9.14]

See supra [1.11].

[9.15]

See supra [1.12].

[9.16]

See supra [1.14].

[10]

See supra [2], [8].

B. Ground 2: Claims 1-10 are obvious over Singh129 in view of Singh906

Singh129 provides the same disclosure as the '121 patent. *Compare* TTI-1005 with TTI-1009. Singh906 provides the same disclosure as the incorporated '802 application. It would have been obvious to combine Singh129 with teachings found in Singh906 to arrive at the Challenged Claims.

Patent Owner should not be heard to argue that the combination of Singh129 and Singh906 fails to disclose each limitation of the Challenged Claims because such an argument would necessarily be an admission that the '121 patent lacks written description. Rather, the only question is whether it would have been obvious to combine the Singh129 embodiment with the teachings concerning the distinct embodiment of Singh906. The answer to this question is “yes.”

Specifically, it would have been obvious to modify Singh129's user preferences to include authentication credentials and global positioning system information and to modify Singh129's client application 203 to include a user authentication module that can log on to websites on the user's behalf and publish the content. *Id.*

A person of ordinary skill in the art would have been motivated to make these modifications for several reasons. TTI-1030, [1014]. First, a skilled artisan starting with Singh129 would naturally look to Singh906 because Singh129 incorporates by reference the '802 application that published as Singh906. TTI-1030, [1014]-[1017].

Second, adding authentication credentials and global position system information to Singh129's user preferences would have given the user more control over the publishing of their multimedia content. *Id.*

Third, there was a known problem of associating multimedia objects with user preferences in the art as shown in Singh129. *Id.* However, Singh906's user preferences address that issue. *Id.* And combining the teachings of Singh129 and Singh906 was not beyond the skill of ordinary skill in the art. *Id.* Indeed, Singh129 and Singh906 address the same problem of associating multimedia objects with user preferences. *Id.* Thus, Singh906's user preferences, which included authentication credentials and global positioning information, were a

known way to address that problem. *Id.*

Fourth, modifying Singh129's client application to upload user preferences (e.g., authentication credentials and GPS information) to websites would allow the client application to publish content on websites that require such information without first sending those preferences to a publishing service. *Id.* A person of ordinary skill in the art would have understood that this functionality would increase the speed at which content could be uploaded because it would reduce the number of data transmissions. *Id.* For mobile devices with sufficient memory to store the content received from the data capture device, it also would have reduced the need to host a separate publishing service and therefore reduced complexity and cost. *Id.* And even if the publishing service was included in the combination, the mobile device would still be able to publish content when the publishing service was down (e.g., for maintenance or due to a power outage). *Id.*

A POSITA would have had a reasonable expectation of success when modifying Singh129 as described above. *Id.* Indeed, the proposed modifications would have required no more than the application of known techniques (using authentication credentials and GPS information) to a known system (Singh129's system) in the same field of endeavor (media publishing) and from the same assignee (CellSpinSoft) to obtain the benefits described above. *Id.* Furthermore, in the resulting system, each element performs the same predictable function as it

does separately, without significantly hindering the functions performed by Singh129's system. *Id.* Indeed, Singh129's system would have continued to perform all the functions it performed before the proposed modifications, including associating multimedia content with user preferences. *Id.*

[1.P]

To the extent the preamble is limiting, the Singh129/Singh906 combination includes element [1.P]. TTI-1030, [1018]. Singh129 discloses a digital data capture device 201 (e.g., a camera), which includes Bluetooth communication device 201a that enables short-range wireless communication with Bluetooth enabled mobile device 202. TTI-1009, Figs. 2, 5.

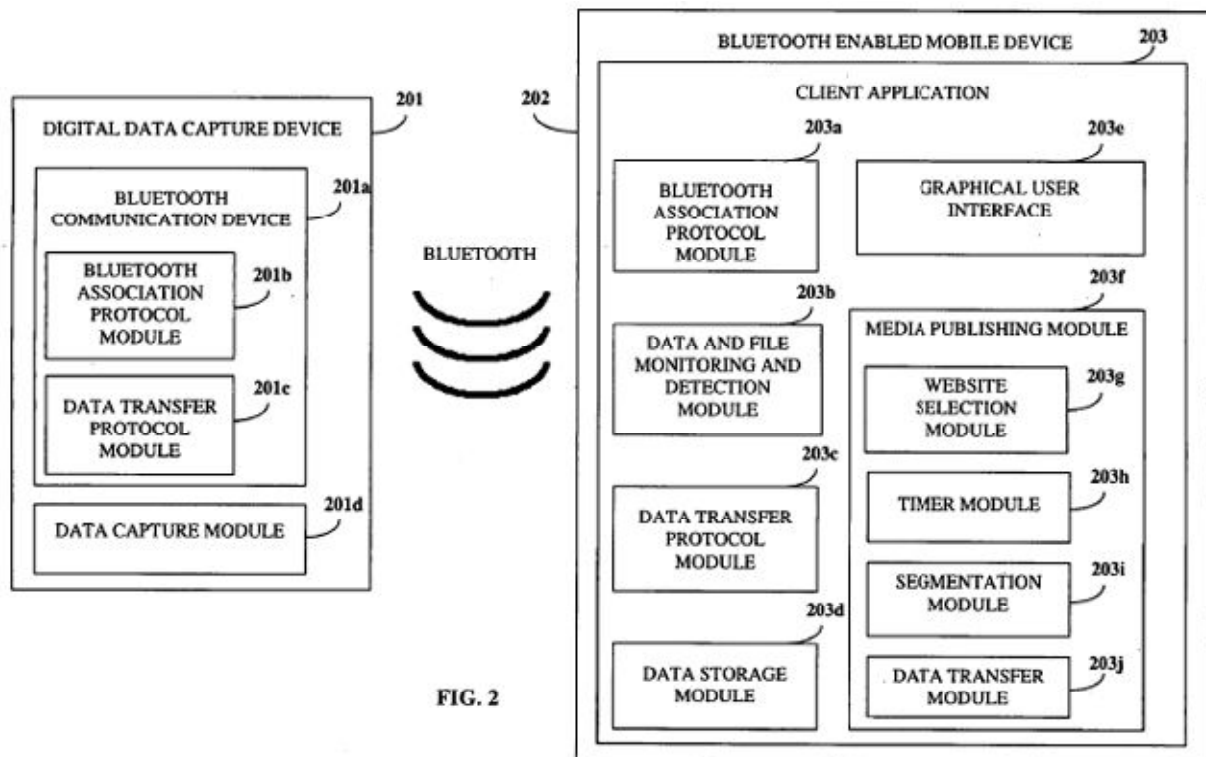


FIG. 2

TTI-1009, Fig. 2.

[1.1]

The Singh129/Singh906 combination includes element [1.1]. TTI-1030, [1019]. Singh129's data capture device 201 includes a memory devices, "one or more microprocessors will receive instructions from a memory or like device", TTI-1009, [0048] and the memory portion of Bluetooth memory card 302). TTI-1009, [0008], [0020], [0032], [0041], Figs. 2, 3A.

[1.2]

The Singh129/Singh906 combination includes element [1.2]. TTI-1030, [1020]. Singh129's data capture device 201 includes a processor coupled to the memory device. TTI-1009, [0048], ("a processor ... will receive instructions from a memory').

[1.3.1]

The Singh129/Singh906 combination includes element [1.3.1]. TTI-1030, [1021]. Singh129's data capture device 201 includes a short-range wireless communication device (Bluetooth communication device 201a) configured to establish (via the Bluetooth protocol) a short-range paired wireless connection between the short-range wireless enabled data capture device 201 and a short-range wireless enabled cellular phone (Bluetooth enabled mobile device 202, which can be a cellular phone). TTI-1009, [0021]-[0022], [0046], Figs. 1-2.

[1.3.2]

The Singh129/Singh906 combination includes element [1.3.2]. TTI-1030, [1022]. In Singh129, establishing the short-range paired wireless connection comprises the data capture device 201 cryptographically authenticating (via the Bluetooth protocol; specifically exchanging passkeys) the identity the cellular phone. TTI-1009, [0021]-[0022].

[1.4]

The Singh129/Singh906 combination includes element [1.4]. TTI-1030, [1023]. Singh129's data capture device 201 includes a data capture circuitry (data capture module 201d). TTI-1009, [0031], Fig. 2.

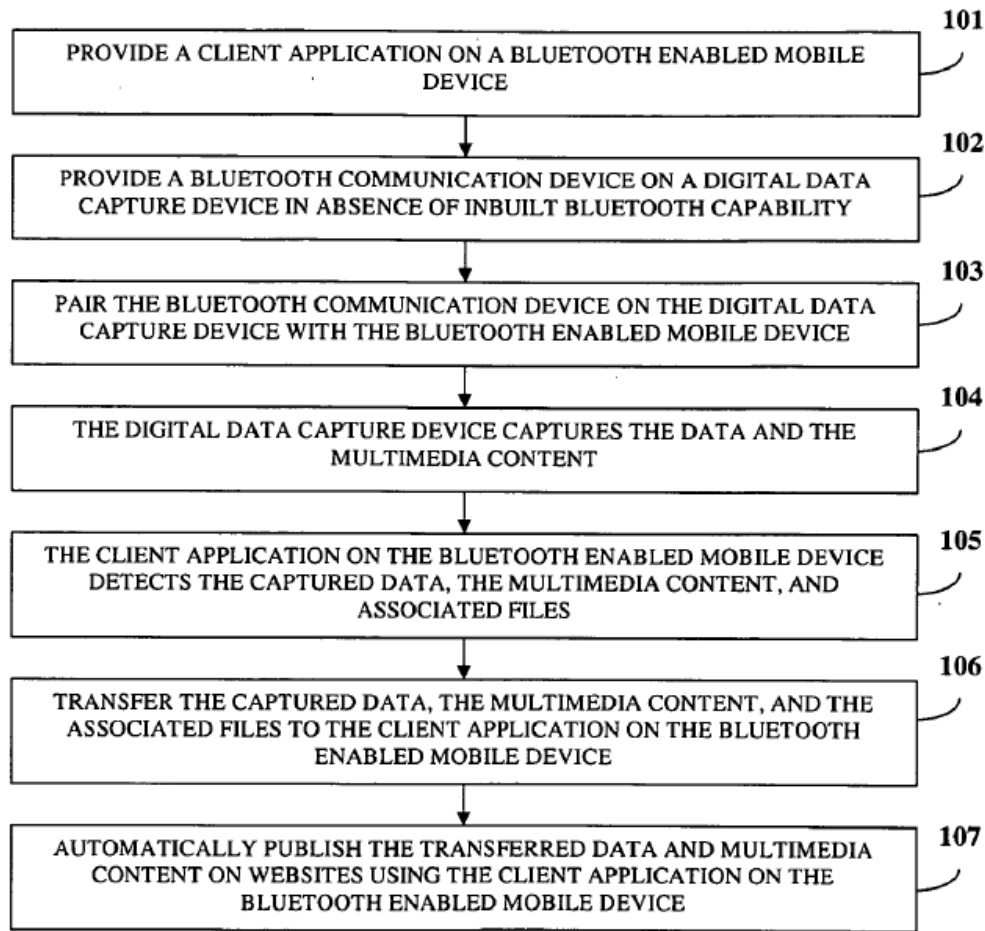
[1.5.1]

The Singh129/Singh906 combination includes element [1.5.1]. TTI-1030, [1024]. Singh129's data capture device processor (*see* Element 1[b]) is configured to acquire new-data (e.g., images) in the data capture device 201 using the data capture circuitry 201d. TTI-1009, [0033], [0023], [0041], [0048], Figs. 1, 2, 5.

[1.5.2]

The Singh129/Singh906 combination includes element [1.5.2]. TTI-1030, [1025]. As shown in Figure 1 of Singh129, the new-data is data acquired (in step 104) after establishing the short-range wireless connection (in step 103) between the data capture device 201 and the cellular phone (mobile device 202). TTI-1009,

Fig. 1, [0021]-[0023].



TTI-1009, Fig. 1.

[1.6]

The Singh129/Singh906 combination includes element [1.6]. TTI-1030, [1026]. Singh129's data capture device processor is further configured to store the new-data in the memory device. TTI-1009, [0023] ("user captures 104 data and multimedia content using the digital data capture device 201"); *see also* [0041] ("the user 502 may capture an image using the digital camera."). Figs. 1, 5. A

person of ordinary skill in the art would have understood that the processor stores the data and multimedia in the memory device. TTI-1030, [1026].

[1.7.1]

The Singh129/Singh906 combination includes element [1.7.1]. TTI-1030, [1027]. Singh129's data capture device processor is further configured to send an event notification (a signal sent on creation of a new file or a response to polling request) and the acquired new-data (e.g., images) to the cellular phone (mobile device 202) over the established short-range paired wireless (Bluetooth) connection automatically. TTI-1009, [0015], [0018]-[0019], [0023] (describing the "pull mode"), [0025] (describing the "push mode"), FIG. 1. Indeed, the '121 patent describes two modes for automatically sending the acquired new-data (push mode and pull mode) and Singh129 discloses the same two modes. TTI-1030, [1027]; compare TTI-1005, 4:51-5:25 with TTI-1009, [0023]-[0025].

[1.7.2]

The Singh129/Singh906 combination includes element [1.7.2]. TTI-1030, [1028]. Singh129's event notification corresponds to the acquired new-data because it is sent when the new-data is acquired and informs the cellular phone that the new-data is available and comprises sending a signal (a response to a poll from client application 203 or a signal sent to client application 203 on creation of a new file) to the cellular phone. TTI-1009, [0023] (describing the "pull mode"), [0025]

(describing the “push mode”).

[1.8]

The Singh129/Singh906 combination includes element [1.8]. TTI-1030, [1029]. Singh129’s cellular phone 202 is configured to listen (via data and file monitoring and detection module 203b) to the event notification signal and receive (via data transfer protocol module 203c) the new-data over the established short-range paired wireless (Bluetooth) connection. TTI-1009, Fig. 2, [0033]-[0034], [0023]-[0025] (describing the push and pull modes).

[1.9.1]/[1.9.2]

The Singh129/Singh906 combination includes element [1.9.1]-[1.9.2]. TTI-1030, [1030]. In the Singh129/Singh906 combination, a single mobile client application (Singh129’s client application 203, which is modified to include user preferences comprising user authentication and GPS information as taught by Singh906) for the cellular phone is configured to process the event notification (using Singh129’s data and file monitoring and detection module 203b and/or Bluetooth association protocol module 203a) and store the received new-data in a memory device (Singh129’s data storage module 203d) of the cellular phone. TTI-1009, [0033]-[0035]; *see also* [0023]-[0025] (describing the push and pull modes), Fig. 2.

[1.10]

The Singh129/Singh906 combination includes element [1.10]. TTI-1030, [1031]. In the Singh129/Singh906 combination, the single mobile client application (*see* Element 1[1]) for the cellular phone stores a user authentication credential (*e.g.*, “authentication ID” or “authentication credentials” as taught by Singh906) in the memory device (*see* Element 1[1]) of the cellular phone. TTI-1010, Fig. 2 (showing user authentication module 202e), Fig. 4 (“authentication ID”), [0023] (“The user preferences may comprise authentication credentials....”), [0025]-[0026] (“user authentication module 202e), [0028] (“The preferences set by the user 201 may be authentication credentials....”); TTI-1009, Figs. 2, 4 (showing client application 203), [0033]-[0037] (describing same).

[1.11]

The Singh129/Singh906 combination includes element [1.11]. TTI-1030, [1032]-[1033]. In the Singh129/Singh906 combination, the single mobile client application (*see* Element [1.9.1]-[1.9.2]) is configured to use HTTP to upload the received new-data (as taught by Singh129) and the user authentication credential (as taught by Singh906) to a user data publishing website (“for example, Flickr™, Picasa™, YouTube™, eBay®, etc.”) over a cellular data network (Singh129’s “cellular network”). TTI-1009, Fig. 1, [0029], [0045] [0047]. As explained in Singh129, “client application 203 on the mobile device 202 ... automatically publishes 107 the transferred data and multimedia content on one or more

websites.” TTI-1009, [0029], Fig. 1; *see also* [0045] (similar). And, as explained in Singh906, “[t]he multimedia object is transferred with the user authentication credentials to the [website]” by a publishing service. TTI-2005, [0037]; *see also* [0047] (similar). Thus, in the combination, the media is transferred with the user authentication credentials to the website by the client application.

As further explained in Singh129, “[t]he network 402 may, for example, be a ... cellular network....” TTI-1009, [0039]. And “[t]he transport protocol that is used between the client application 203 and the publishing service 401 may be hypertext transfer protocol (HTTP)....” TTI-1009, [0047]. In the Singh129/Singh906 combination, HTTP is also used between the client application and the website. *See* Section VI.B, *supra*. *See* Ground 2, [1.9.1]-[1.9.2].

[1.12]

The Singh129/Singh906 combination includes element [1.12]. TTI-1030, [1034]. In the Singh129/Singh906 combination, the upload is based on a timer setting (the “no-wait-automatic,” “wait-X-minutes-automatic,” or “wait-X-minutes-user-input-cancel” settings in Singh129’s timer module 203h, which “sets the time for publishing”) on the single mobile client application.; TTI-1009, [0036].

[1.13]

See Ground 2, Element [1.11] (confirming that the Singh129/Singh906

combination's single mobile client application is configured to use HTTP to send the user authentication credential to the user data publishing website over the cellular data network). As confirmed in Singh906, the user authentication credential is a user preference. TTI-1010, [0023] ("The user preferences may comprise authentication credentials...."). In the Singh129/Singh906 combination, the user preferences also include global positioning information as taught by Singh906. *Id.*; TTI-1030, [1035].

[1.14]

The Singh129/Singh906 combination includes element [1.14]. TTI-1030, [1011]. In the Singh129/Singh906 combination, the single mobile client application for the cellular phone provides a touch-based GUI (Singh129's "graphical user interface 202a") for the received new-data. TTI-1009, Fig. 2, [0033] ("graphical user interface (GUI) 203e"), [0035], Claim 11.

[2]

The Singh129/Singh906 combination includes the elements in claim 2. TTI-1030, [1037]. Singh129's short-range paired wireless connection is a Bluetooth paired wireless connection. *Id.*; TTI-1009, Fig. 1, [0021].

[3]

The Singh129/Singh906 combination includes the elements in claim 3. TTI-1030, [1038]. In the Singh129/Singh906 combination, the user authentication

credential (*e.g.*, “authentication ID” or “authentication credentials” as taught by Singh906) sent by the single mobile client application is used to authenticate (using Singh906’s user authentication module 204g, which is incorporated into Singh129’s publishing service 401) a user on the user data publishing website and publish the new-data for private use on the user data publishing website. TTI-1009, Fig. 1 (step 107); TTI-1010, Fig. 4 (steps 410-411), [0035], [0037], [0049].

[4.P]

To the extent the preamble is limiting, the Singh129/Singh906 combination includes element 4[P]. TTI-1030, [1039]. Singh129 discloses a system comprising, among other things, a digital data capture device 201, a Bluetooth enabled mobile device 202, and a publishing service 401. TTI-1009, Figs. 1-5 and related descriptions.

[4.1]-[4.4.1]

See Ground 2, Elements [1.P]-[1.3.1].

[4.4.2]

The Singh129/Singh906 combination includes element [4.4.2]. TTI-1030, [1041]. Singh129’s cellular phone 202 is internet enabled. TTI-1009, [0039], [0042] (“The client application 203 automatically publishes the transferred image on one or more websites via the internet 501.”), [0047] (“One of the transport mechanisms to achieve the connectivity between the publishing service 401 and

the client application 203 is the wireless internet.”).

[4.4.3]/-[4.8.2]

See Ground 2, Elements [1.3.2]-[1.7.2].

[4.9]

The Singh129/Singh906 combination includes element [4.9]. TTI-1030, [1043]. Singh129’s cellular phone 202 comprises a memory device (data storage module 203d). TTI-1009, Fig. 2, [0033], [0035].

[4.10]

The Singh129/Singh906 combination includes element [4.10]. TTI-1030, [1044]. Singh129’s cellular phone 202 comprises a processor coupled to the second memory device. TTI-1009, [0026] (disclosing a “mobile device 202 with limited memory and processing capabilities”); see also [0037], [0039], [0043], [0048].

[4.11]

The Singh129/Singh906 combination includes element [4.11]. TTI-1030, [1045]. Singh129’s cellular phone 202 comprises a cellular network communication (the portion of the phone that enables telephony data capabilities and/or data transfer module 203j) configured to connected to the internet via a cellular data network (“telephony network” or “cellular network”). TTI-1009, [0039] (“The network 402 may, for example, be a ... cellular network....”), [0047]

(“telephony network”).

[4.12]

The Singh129/Singh906 combination includes element [4.12]. TTI-1030, [1046]. Singh129’s cellular phone 202 comprises a second short-range wireless communication device (Bluetooth association protocol module 203a) configured to establish the short-range paired wireless (Bluetooth) connection between the cellular phone and the data capture device. TTI-1009, Fig. 2, [0033].

[4.13]

The Singh129/Singh906 combination includes element [4.13]. TTI-1030, [1047]. Singh129’s cellular phone 202 comprises a single mobile client application (Singh129’s client application 203) comprising executable instructions (Bluetooth association protocol module 201b and/or data and file monitoring and detection module 203b), that are executed by the second processor. TTI-1009, Figs. 1-2, [0025].

[4.14.1]-[4.14.2]

See Ground 2, Element [1.8]-[1.9.1].

[4.15]

See Ground 2, Element [1.8].

[4.16]-[4.20]

See Ground 2, Elements [1.9.2]-[1.14].

[5]

See Ground 2, Claim 2.

[6]

See Ground 2, Claim 3.

[7.P]

See Ground 2, Element [1.P], [1.3.1].

[7.1]-[7.4.1]

See Ground 2, Elements [4.9]-[4.12].

[7.4.2]

See Ground 2, Element [1.3.2].

[7.5]

See Ground 2, Element [4.13].

[7.6.1]

See Ground 2, Element [1.7.2]-[1.8], [4.14.1].

[7.6.2]

See Ground 2, Element [1.5.1]-[1.5.2].

[7.7]

See Ground 2, Element [1.7.2]-[1.8] (confirming that the Singh129/Singh906 combination's client application controls the processor to receive the new-data from the short-range wireless enabled data capture device). The Singh129/Singh906 combination's client application also controls the

processor to receive the event notification from the data capture device using Bluetooth association protocol module 201b and/or data and file monitoring and detection module 203b. TTI-1030, [1059]; TTI-1009, [0023]-[0025], [0033].

[7.8]

See Ground 2, Element [1.9.1]-[1.9.2], [14.4.2].

[7.9]

See Ground 2, Element [1.10].

[7.10]

See Ground 2, Element [1.13].

[7.11.1-7.11.2]

See Ground 2, Elements [1.11]-[1.12].

[7.12]

See Ground 2, Element [1.14].

[8]

See Ground 2, Claim 2.

[9.P-9.6]

See Ground 2, Elements [1.P]-[1.6].

[9.7.1]-[9.7.2]

The Singh129/Singh906 combination includes element [9.7.1]-[9.7.2]. TTI-1030, [1067]-[1068]. Singh129's data capture device processor is configured to listen to a polling request from a Singh129's single mobile client application 203

on cellular phone 202, over the established paired Bluetooth connection, wherein the polling request is for the new-data. TTI-1009, [0023]-[0025] (“the client application 203 periodically polls the digital data capture device 201 to determine the creation of a new file in the digital data capture device 201.”).

[9.8]

The Singh129/Singh906 combination includes element [9.8]. TTI-1030, [1069]. Singh129’s single mobile client application 203 on cellular phone 202 is configured to detect (using Bluetooth association protocol module 201b and/or data and file monitoring and detection module 203b) the new-data for transfer from the data capture device 201 to the cellular phone 202. TTI-1009, [0033], [0034]. The Singh129/Singh906 combination includes detecting the new-data for transfer by Singh129’s cellular phone 202 comprises polling Singh129’s data capture device 201 by the cellular phone 202 using the Singh129/Singh906 combination’s client application over the established paired Bluetooth connection. TTI-1030, [1069]; TTI-1009, [0021]-[0022] (describing the paired connection), [0023] (describing polling), [0025] (describing the push mode).

[9.9]-[9.10]

See Ground 2, Elements [1.7.1]-[1.9.1].

[9.11]

See Ground 2, Element [1.8].

[9.12]

See Ground 2, Element [1.10].

[9.13-9.15]

See Ground 2, Elements [1.11]-[1.13].

[9.16]

See Ground 2, Element [1.14].

[10]

See Ground 2, Claim 2.

VII. DISCRETIONARY CONSIDERATIONS

A. The *Advanced Bionics* Test Favors Institution—§325(d)

Advanced Bionics and the *Becton* factors strongly favor institution.

Advanced Bionics LLC v. MED-EL Elektromedizinische Gerate GmbH, IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020) (precedential); *Becton, Dickinson and Co. v.*

B. Braun Melsungen AG, IPR2017-01586, Paper 8 (PTAB Dec. 15, 2017)

(precedential). Under Part I of the two-part framework, the board considers

“whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office.” *Advanced Bionics*, IPR2019-01469, Paper 6 at 7-9.

If the Board finds that Part 1 of the test is satisfied (it is not), the board must consider “whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of the challenged claims,” based on the considerations

under the Becton Dickinson factors C, E and F. *Advanced Bionics*, IPR2019-01469, Paper 6 at 7-9. Here, the examiner clearly erred by withdrawing the written description objections to the challenged claims. As discussed above in Section V, although the examiner identified individual limitations that are not disclosed in the specification of the '121 patent, the examiner did not analyze whether the applicants were in possession of the claimed combinations of elements that mix and match features from unrelated patent applications and the examiner failed to recognize that the '121 patent improperly incorporates by reference essential material disclosed in the '802 application. As a result, the examiner incorrectly assumed that the challenged claims are entitled to a priority date earlier than August 6, 2019, and thus did not analyze whether the challenged claims were obvious over Singh129 in view of Singh906.

And the examiner did not consider the remaining ground in this Petition.

Accordingly, the Board should not exercise its discretion under Section 325(d)

B. The *Fintiv* Factors Favor Institution—§314(a)

The PTAB considers a set of non-exclusive factors (the *Fintiv* factors) in determining whether to institute an IPR proceeding where there is parallel district court litigation. *See Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential). On June 21, 2022, Director Vidal issued “binding

agency guidance” entitled “Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation.” TTI-1034 (hereinafter the “Interim Guidance”). This Interim Guidance presents “several clarifications... to the PTAB’s... application of *Fintiv* to discretionary institution where there is parallel litigation.” *Id.*, 2.

One clarification provided by the Interim Guidance specifies the effect of particular types of stipulations presented by petitioners on the Board’s application of the *Fintiv* framework. *Id.*, 3, 7-8. In particular, the Interim Guidance unequivocally states that “***the PTAB will not discretionarily deny institution*** of an IPR or PGR in view of parallel district court litigation where a petitioner stipulates not to pursue in a parallel district court proceeding the same grounds as in the petition or any grounds that could have reasonably been raised in the petition.” *Id.*, 7 (emphasis added) (citing *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020)). In the present case, Petitioner presents a stipulation, should institution be granted, not to pursue in the parallel district court proceeding the same grounds as in the Petition or any grounds that could have reasonably been raised in the Petition if this IPR is instituted. *See* TTI-1035. Accordingly, based on the Interim Guidance, institution of the Petition ***should not*** be discretionarily denied in view of the parallel district court proceeding. *See* TTI-1034, 7.

VIII. PAYMENT OF FEES – 37 C.F.R. §42.103

Petitioner authorizes the Patent and Trademark Office to charge any fees to Deposit Account No. 06-1050.

IX. MANDATORY NOTICES UNDER 37 C.F.R § 42.8(a)(1)

A. Real Party-In-Interest Under 37 C.F.R. § 42.8(b)(1)

TikTok Inc., Bytedance Inc., Bytedance, Ltd., Bytedance Pte Ltd., and TikTok Pte Ltd. are the real parties-in-interest.

B. Related Matters Under 37 C.F.R. § 42.8(b)(2)

Petitioner is not aware of any disclaimers, reexamination certificates, or petitions for *inter partes* review for the '121 patent. The '121 patent is the subject of a civil action *CellSpin Soft, Inc. v. ByteDance, Ltd. et al.*, Case No. 2:23-cv-496 (E.D. Tex.).

The '121 patent is in the same family as U.S. Patent Nos. 11,659,381 (“the '381 patent”), 9,900,766 (“the '766 patent”), 8,756,336 (“the '336 patent”), 8,862,757 (“the '757 patent”), 8,898,260 (“the '260 patent”), and 8,904,030 (“the '030 patent”). Petitioner is concurrently petitioning for *Inter Partes* Review of the '381, '121, '766, '336, '757, '260, and '030 patents.

The '121 patent is also in the same family as U.S. Pat. No. 9,258,698, which was the subject of IPR2019-00127, IPR2019-00131, IPR2019-01107, and IPR2019-01108.

U.S. Patent Application No. 18/193,686 is in the same patent family as the '381, '121, '766, '336, '757, '260, and '030 patents and is currently pending before the Patent Office.

C. Lead And Back-Up Counsel Under 37 C.F.R. § 42.8(b)(3)

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D. Service Information

Please address correspondence/service to the above-listed address.

Petitioner consents to email service at IPR50048-0055IP1@fr.com.

Respectfully submitted,

Dated: April 5, 2024

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CERTIFICATION UNDER 37 CFR § 42.24

Under the provisions of 37 CFR § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Petition for *Inter Partes* Review totals 13,672 words, which is less than the 14,000 allowed under 37 CFR § 42.24.

Dated: April 5, 2024

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR §§ 42.6(e)(4)(i) *et seq.* and 42.105(b), the undersigned certifies that on April 5, 2024, a complete and entire copy of this Petition for *Inter Partes* Review and all supporting exhibits were provided via Federal Express, to the Patent Owner, by serving the correspondence address of record as follows:

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