

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TIKTOK INC.
Petitioner,

v.

CELLSPIN SOFT, INC.,
Patent Owner

IPR2024-00767
U.S. Pat. No. 11,659,381

**PETITIONER'S REPLY
TO PATENT OWNER'S RESPONSE**

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LIST OF EXHIBITS

TTI-1001–1005 RESERVED

TTI-1006 US11234121 File History

TTI-1007 U.S. Patent No. 11,659,381 (“the ’381 patent”)

TTI-1008 Excerpts from the Prosecution History of the ’381 patent

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 to Wagner et al. (“Wagner”)

TTI-1019 Bluetooth TM Core Specification 2.1 + EDR (“Bluetooth Core Specification”)

TTI-1020 U.S. Patent No. 6,636,259 to Anderson et al. (“Anderson”)

TTI-1021 U.S. Patent No. 7,639,943 to Karajan (“Karajan”)

TTI-1022–1025 RESERVED

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

TTI-1027 As-filed Patent Application for 17/542,373 (“the ’373 Application”)

TTI-1028 RESERVED

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

TTI-1030 Declaration of David B. 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. Bagdikian, "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.)

TTI-1037 Consolidated Trial Practice Guide,
<https://www.uspto.gov/patents/ptab/trials/practice-guides>

TTI-1038 Transcript of the Deposition of Pavan M. Gajendragad of March 21, 2025

TTI-1039 Transcript of the Deposition of Pavan M. Gajendragad of March 28, 2025

TTI-1040 Microsoft Corporation, “Media Transfer Protocol Enhanced”,
Revision 0.96 August 31, 2006

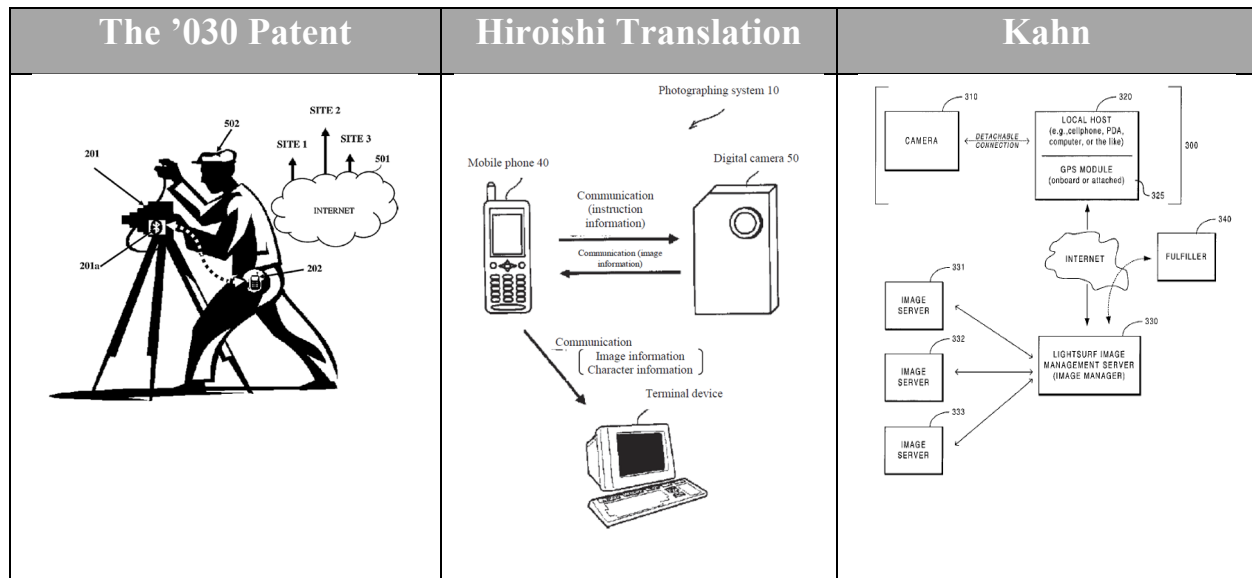
- TTI-1041 Excerpts from Bluetooth Basic Imaging Profile v1.2.1, January 21, 2019
- TTI-1042 NIST “Guide to Bluetooth Security”, Special Publication 800-121 September, 2008, downloaded from the internet at <https://www.govinfo.gov/content/pkg/GOVPUB-C13-PURL-LPS121099/pdf/GOVPUB-C13-PURL-LPS121099.pdf>
- TTI-1043 Claim Construction Order, CellSpin v. Fitbit, Case No. 17-cv-05928-YGR (April 14, 2021 N.D. Cal)
- TTI-1044 Excerpts from the Prosecution History of U.S. Patent Application Serial No. 13/922,227 (“the ’227 application”)
- TTI-1045 Merriam Webster definition for “along with,” retrieved March 24, 2025
- TTI-1046 U.S. Patent No. 7,120,148 to Batz et al., filed February 12, 2002, Issued October 10, 2006
- TTI-1047 Order granting Stay Pending Inter Partes Review, CellSpin Soft, Inc. v. ByteDance, Ltd. et al., Case No. 2:23-cv-496, E.D. Tex., granted Jan. 26, 2025
- TTI-1048 Second Declaration of David Lett

I. INTRODUCTION

TikTok Inc. (“Petitioner”) submits this Petitioner’s Reply in response to CellSpin Soft’s (“Patent Owner” or “CellSpin”) Patent Owner’s Response (“POR”)¹ in IPR2024-00767, which challenges the validity of U.S. Patent No. 11,659,381 (“the ’381 patent”). CellSpin’s arguments lack merit and should be rejected for the reasons below.

The ’381 patent generally relates to wirelessly transferring data from a capture device to a server on the internet using a cellphone (which has an internet connection, whereas the capture device does not). The Petition (Paper 2) demonstrates that the claims are unpatentable based, at least, on the advanced prior art, including references like Hiroishi, Takahashi, and Kahn, which discloses transferring image data from a camera to an internet-based server using a cellphone as the intermediary.

¹ CellSpin uploaded additional exhibits with their POR that reuse exhibit numbers from their earlier pre-institution briefing. Unless otherwise indicated, Petitioner’s exhibit cites refer to CellSpin’s post-institution exhibits.



The Petition explained that many of the details found in the claims are simply copied from the prior art Bluetooth specification. There is nothing inventive about the '381 patent.

The POR argues that the recited combination of Bluetooth elements would not have been obvious because the Bluetooth specification allegedly offers many permutations of Bluetooth features that a designer must choose from. But the combination of claimed elements is informed by a Bluetooth default: devices using Bluetooth 2.1 operating over a paired, authenticated, and encrypted connection. TTI-1019, 1273; TTI-1042, 16.

In Ground 2, the Petition points out that the claims would have been obvious to a POSITA over proclaimed priority documents, which qualify as prior art

because the claims are not entitled to the priority date. The POR agrees that the priority document does not disclose limitations necessary for priority, and that the only support for these limitations comes from the '802 application, incorporated by reference (improperly). POR, 64-65. But this argument fails, at least because neither the 802 application nor the '381 patent specification direct the reader to any disclosure of mixing and mixing disparate embodiments.

The Petition argued unpatentability on a claim-by-claim basis. The POR does not respond on a claim-by-claim basis, and thus, it is unclear which claims are necessarily implicated by which argument. Accordingly, this Reply responds to the POR's thematic points and refutes each argument in the POR. This Reply thus demonstrates that to the extent the arguments in the POR implicate the claims, they are flawed, incorrect, and do not undermine the arguments and evidence in the Petition.

II. CELLSPIN'S CLAIM CONSTRUCTION ARGUMENTS FAIL

CellSpin advances and heavily relies on very narrow constructions of various claim features, without demonstrating the presence of lexicography in the '381 patent itself, and instead relying on questionable extrinsic evidence. As explained below, these claim features should be given only their plain and ordinary meaning.

A. CellSpin's Representations of the Litigation's Claim Construction Pleadings Are Not Accurate

CellSpin misrepresents multiple aspects of the claim construction arguments in the stayed co-pending litigation.

First, CellSpin represents that “[t]he District Court in this matter is in the process of carrying out its claim construction role.” POR, 5. Not so. The co-pending litigation is stayed pending the outcome of these IPRs, and thus, the District Court has stopped all deliberation on claim construction, *inter alia*. TTI-1047. Thus, any further claim construction developments in the co-pending litigation would occur after the resolution of these IPRs. *Id.*

Second, CellSpin represents that “Petitioner is seeking to secure narrow constructions of one hundred plus claim terms in the District Court.” POR, 6-7 (emphasis omitted). This is misleading. Petitioner proposed preliminary constructions for only eight unique claim features for the ’381 Patent in litigation. EX-2002, 5-6. To the extent this has any relevance here (it does not, as the litigation is stayed), CellSpin has significantly overinflated the true scope of Petitioner’s previous preliminary claim construction arguments by double-counting similar claim features across different claims—something that is acknowledged by both Mr. Gajendragad and CellSpin’s counsel. TTI-1038, 68:18-83:15, 89:15-90:22.

Accordingly, CellSpin’s representations of the status of claim construction in the co-pending litigation cannot be trusted.

B. CellSpin’s Claim Constructions Are Unjustifiably Narrow and Fail to Address the Applicability of the Grounds

Formal claim constructions are not necessary to rule in Petitioner’s favor. And yet, CellSpin advances overly narrow and unsupported constructions of various claim limitations and seeks to import a host of constructions from co-pending and stayed litigation, despite their lacking relevance to the applicability of grounds advanced in this proceeding. The Board should reject CellSpin’s overly narrow and unhelpful proposed constructions. But even under CellSpin’s narrow proposed constructions, the Petition establishes unpatentability.

Thus, the Board need not construe the claim terms in this proceeding. *E.g.*, *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019). That is improper. Although no claim construction is necessary here, Petitioner provides the analysis below to aid the Board in understanding the Petitioner’s positions with respect to the claim construction issues.

C. “user profile”

CellSpin argues that a “user profile” is “a collection of information associated with a user,” and that it “contains information such as their Username.” POR, 60. This construction is unnecessary, confusing, and ambiguous. The construction is unnecessary because a POSITA would have understood what a user profile was. TTI-1048, ¶¶23-27. The claims do not use “user profile” in a special or confusing

way that would warrant the need for a construction, let alone a construction that adds confusion and ambiguity to the term and that unnecessarily narrows the term beyond its ordinary meaning.

CellSpin's construction is not supported by the specification. Indeed, the '381 patent specification does not use the term "user profile" at all. For support, CellSpin cites unauthenticated articles about MySpace in support of their construction of "user profile." POR, 12-17 (citing EX2017). A POSITA would not limit the general term "user profile" to the specific profile content that MySpace happened to use. TTI-1048, 23-27. It is simply one out of thousands of "user profiles" that a system may create.

That CellSpin's construction is confusing and ambiguous is evident from its application of it here. On the one hand, CellSpin can identify nothing from the '381 patent specification (or from Singh906) that would aid in defining a user profile; but, on the other, CellSpin argues the image management server database that is keyed to include a user ID (as well as other information associated with the user) would not meet that definition. TTI-1017, [0098], FIG. 6 (showing user account tab in the web browser based image viewing and sharing interface).

III. BIP IS IRRELEVANT TO THESE PROCEEDINGS AND DOES NOT HELP CELLSPIN

The POR relies on the Basic Imaging Profile (BIP) as alleged evidence that a POSITA would allegedly not use a paired connection. POR, 21-26. First, BIP is not relevant to these proceedings because it was not adopted by the Bluetooth committee until 2010—three years after the priority date asserted by CellSpin.

Revision History

Revision	Date	Comments
1.0 Final	2002-11-15	Final draft
1.0 Final_a	2003-07-25	Further changes after BQRB review
V11	2010-08-26	Adopted by the Bluetooth SIG Board of Directors
V12	2012-07-24	Adopted by the Bluetooth SIG Board of Directors
v1.2.1	2019-01-21	Adopted by the Bluetooth SIG Board of Directors

TTI-1041, 2 (annotated); TTI-1048, ¶¶28-51.

Therefore, a POSITA in 2007 would not have felt any obligation to follow BIP (assuming the POSITA would have known about BIP in the first place). TTI-1048, ¶¶28-51.

Second, BIP does not recommend against pairing as CellSpin alleges. On the contrary, BIP states that all devices “must support pairing” and that pairing can be performed “as necessary.” TTI-1041, 3. Pairing is only “necessary” if two devices that want to securely communicate are not paired already. If two devices are already paired, then pairing is unnecessary. TTI-1048, ¶¶28-51. Thus, BIP operates over a paired connection.

IV. RESPONSES TO SPECIFIC ARGUMENTS IN THE POR

A. Ground 1: The Paired Connection Limitations

1. *A POSITA Would Have Used a Paired Connection*

CellSpin does not dispute that Bluetooth uses pairing, at least some of the time. Anyone who has used Bluetooth is aware of this plain fact, and the prior art has ample disclosure of pairing in Bluetooth 2.1. *See, e.g.*, TTI-1019, 131-135, 1060-1062, 1273, 1286. Instead, CellSpin argues that Bluetooth does not require pairing and that it is possible to have unpaired Bluetooth communication. POR, 24-26. This is inaccurate for failing to regard Bluetooth defaults for secure communications and a red herring for failing to regard the context of Hiroishi's teachings.

The Petition asserts, and the evidence establishes, that a POSITA designing a system based on Hiroishi would have used a secure Bluetooth paired connection to protect the images being transferred from camera to phone. *E.g.*, Petition, 31-35. A paired connection is the default type of connection on Bluetooth. TTI-1019, 1273, 1286; TTI-1042, 16. Pairing creates a permanent association between two devices so that they may easily establish a secure encrypted communication channel based on previously exchanged link keys (during the pairing process). Through pairing, each device recognizes as authenticated the other device. TTI-1048, 39.

With this context, below, we address CellSpin's arguments and their lacking merit.

First, CellSpin discusses “pairing,” but the claims do not require “pairing”; they instead require a “paired” connection. Accordingly, the claims assume that (manual or automatic) pairing has already occurred, which is consistent with the definition of “paired” to mean “in the condition of having exchanged link key.” POR, 8. As Mr. Lett explains, the process of pairing would happen once, and thereafter the camera and phone would establish a paired connection based on the pairing that previously occurred. TTI-1048, ¶¶28-51. Also, a paired state is persistent for two devices: once paired, devices remain paired, until unpaired. *Id.* And because a paired state is persistent, and the pairing process need only happen once for each pair of devices, the Bluetooth specification states that paired connections may be established without going through the “pairing” steps every time. *Id.*

The POR is incorrect when it suggests that pairing is “optional.” POR, 28-29. More accurately put, a POSITA understood that devices may skip the pairing process if they are already paired, and that Bluetooth 2.1 contemplated a paired and encrypted connection with other Bluetooth 2.1 devices was the default. . TTI-1048, ¶¶28-51; TTI-1042, 16.

Informing and corroborating his views, Dr. Lett describes an example of how Bluetooth 2.1+EDR was interpreted and implemented in industry. Specifically, NIST drafted and released their security protocol implementation

recommendations. In the security protocol implementation recommendations, NIST explains that Security Mode 4 is “mandatory” for communication between 2.1 + EDR devices and uses Secure Simple Pairing, which is consistent with his description of Bluetooth 2.1+EDR above. TTI-1042, 7, 16, 18. While not prior art, NIST does demonstrate that a POSITA implementing Bluetooth would have known that Security Mode 4 was required for Bluetooth 2.1+EDR and that Secure Simple Pairing was the default for Security Mode 4. *Id.*; TTI-1048, ¶¶28-51.

Indeed, as Mr. Lett explains, unsecure communications are only present in the Bluetooth 2.1 for backward compatibility. In the prior art combinations, the phone and camera are paired and authenticated using Bluetooth 2.1, enabling communication via an encrypted channel. TTI-1048, ¶¶36-51; TTI-1019, 1269-1287; TTI-1042, 16.

Thus, the POR is incorrect when it states that the default for Bluetooth 2.1 is an unpaired connection. CellSpin simply fails to justify its assertion that a POSITA would choose an unpaired connection rather than a paired one. TTI-1048, ¶¶28-51. Indeed, it is telling that even the CellSpin POR seems to recognize that the Bluetooth 2.1 default formed paired connections by exchanging link keys. POR, 33-34 (citing TTI-1019, 1273, 1286); TTI-1039, 17:8-21:8.

Still, the POR argues, without corroboration, that pairing would be avoided due to battery drain issues. POR, 25-27. Here, again, the POR is incorrect as it

fails to account for the fundamental fact that pairing is only performed **once** per pair of devices. Once paired, the devices simply use the exchanged link keys to authenticate the other device and encrypt the exchanged data. Moreover, CellSpin's assertion that the "default" Bluetooth connection is "unpaired, unauthenticated, and unencrypted" is incorrect, and contradicted by the record. POR, 27; TTI-1048, ¶¶28-51; TTI-1042, 16. Furthermore, Mr. Gajendragad acknowledged at his deposition that his knowledge of pairing was limited. TTI-1039, 17:8-21:8.

The use-case described by Hiroishi involves a person using their mobile phone to remotely control their camera over a Bluetooth connection to take self-portraits. TTI-1011, [0004], [0042], [0061], [0066]-[0068]. In that scenario, a POSITA would have found it obvious that the user's devices would have already been paired prior to establishing the Bluetooth connection between them for the photographing session. TTI-1048, ¶¶28-51. Additionally, a POSITA would have recognized the benefits of Secure Simple Pairing, including the prevention of eavesdropping, as a motivation to perform Secure Simple Pairing to link Hiroishi's camera and mobile phone. *Id.*, ; Petition, 18-19; TTI-1019, 131-132.

2. Authentication Is Part of Secure Simple Pairing

The POR's understanding of Secure Simple Pairing is flawed. The Secure Simple Pairing process is outlined by the Bluetooth 2.1+EDR specification

(“BT2.1”) and shows that Secure Simple Pairing involves authentication and encryption:

7 SECURE SIMPLE PAIRING

The Secure Simple Pairing security functions and procedures are described in this section. In addition, a cryptographic analysis of each procedure is provided.

There are five phases of Secure Simple Pairing:

- Phase 1: Public key exchange
- Phase 2: Authentication Stage 1
- Phase 3: Authentication Stage 2
- Phase 4: Link key calculation
- Phase 5: LMP Authentication and Encryption

TTI-1019, 1058

Secure Simple Pairing uses a cryptographic encryption key called a link key used for **both** authentication and encryption. *Id.*, 1059-1066, 91 (defining “link key” as “A secret key that is known by two devices and is used to authenticate each device to the other”). For authentication using the Just Works AM, Secure Simple Pairing uses an “unauthenticated link key,” which simply means that the operator does not verify the link key during the Secure Simple Pairing process, either through “Numeric Comparison” or “Passkey Entry.” *Id.*, 131-135, 1060-1062, 1273, 1286. CellSpin thus confuses (and conflates) authentication of devices using link keys and a separate authentication process to validate the link key itself. For example, a state drivers license is used to authenticate a driver. One can also obtain a “real ID” which provides **additional authentication** for the driver’s license itself. But even a non-real-ID driver’s license provides authentication. Similarly, Secure

Simple Pairing (even without an "authenticated" key) provides "Secure, Authenticated, Simple Pairing":

The following diagram shows Secure Simple Pairing from the point of view of the technology used for discovery and then the different association possibilities.

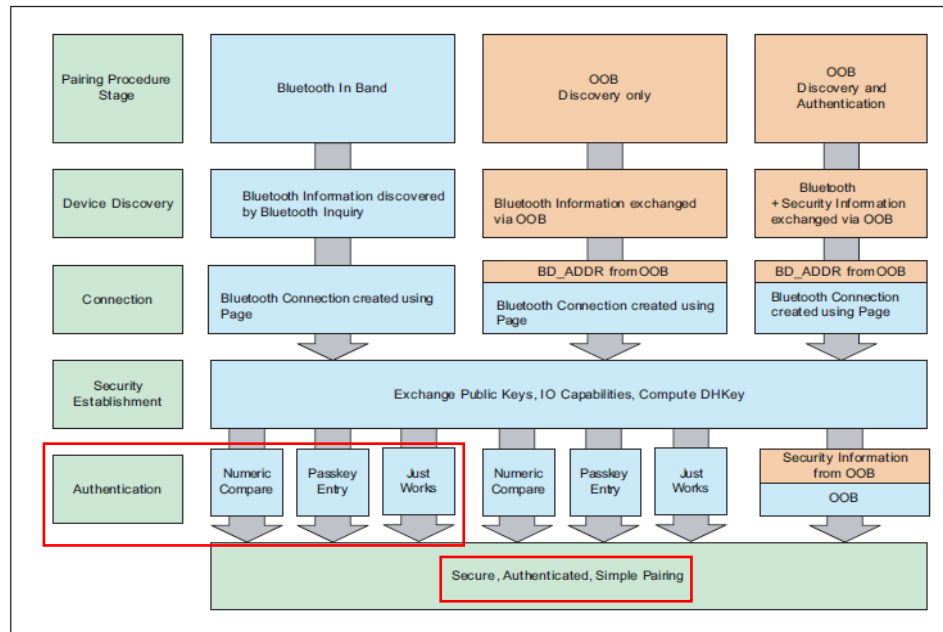


Figure 5.1: Secure Simple Pairing Association Models

TTI-1019, 135 (annotated); TTI-1048, ¶¶28-51.

3. *Hiroishi's Bluetooth Link Is Maintained on a Continuous Basis*

CellSpin asserts—without any basis or logic—that “a POSITA would NOT choose to ‘maintain a paired connection on a continuous basis.’” POR, 28. That is incorrect. The POR defends this statement by asserting that the BIP does not require pairing. POR, 27-28. As stated earlier, the BIP does not recommend

against a paired connection and requires that devices support pairing; but the BIP is not relevant anyway.

Regardless, Hiroishi maintains its Bluetooth connection on a continuous basis. A POSITA would have recognized or found it obvious that Hiroishi maintains the connection because the connection is used for more than simply transferring images from camera to phone. TTI-1048, ¶¶28-51. For example, Hiroishi uses the Bluetooth connection for remote control of the camera and thus a POSITA would leave open the paired connection to exchange the remote control signals as well as the image data. TTI-1048, ¶¶28-51. Thus, the paired connection would be established **first** to allow for remote control commands. A remote control command would be sent over the paired connection to activate the shutter release causing a picture to be taken. The picture would then be transmitted from camera to phone over the Bluetooth paired connection. *Id.* Also, although not required under the construction, Hiroishi further maintains the Bluetooth connection while data is being transferred to the remote site. TTI-1011, [0044], [0107]; TTI-1048, ¶¶28-51.

B. Ground 1: Event Notifications (Claims 1 and 7)

The POR's discussion distinguishing event-driven and request-driven architectures is not applicable to the claims of the '381 patent. POR, 43-50. First, the specification of the patent does not discuss or distinguish these two software

architectures. Second, CellSpin’s evidence concerning “request/response” architectures comes from books discussing web-based client-server networking, and CellSpin has failed to offer any evidentiary basis to establish that this would have been understood by a POSITA to have been pertinent to the Bluetooth link in Hiroishi, Kahn, or the patent. POR, 37-38.

Third, CellSpin’s basis for distinguishing the two architectures is factually incorrect. CellSpin suggests that a component must “wait” in a request/response architecture, but would not “wait” in an event driven architecture, and concludes that Hiroishi must therefore fall with the “request driven architecture.” *Id.* However, even in the “event driven architecture,” the component expecting an event must wait. As CellSpin’s own evidence states: Applications conforming to an event driven architecture must “do[] nothing until an event occurs.” EX2010, 2. Thus, “waiting” occurs in both architectures.

Fourth, CellSpin distinguishes “request driven” architectures from “event driven” architectures on the basis that the former is synchronous whereas the latter is asynchronous. CellSpin does not even contend that the patent discusses synchronous or asynchronous communications (it does not), or that the claims mandate one technique over the other. Indeed, the term “asynchronous” is not even found in the patent specification or claims.

Fifth, CellSpin offers no objective evidence establishing that “request driven” and “event driven” are the only two possible architectures, or that they are mutually exclusive. For example, nothing prevents software from sending requests and responding to events, and thus having aspects of both these alleged architectures. Thus, CellSpin’s argument that Hiroishi must exclusively fall with the request driven camp to the exclusion of any event-driven aspects is baseless. Thus, the whole discussion of architectures in the POR is academic and not helpful to the issues before the Board.

The POR attempts to distinguish Hiroishi and Khan on the basis that they use a request-driven architecture whereas the claims presumably (in CellSpin’s view) require an event driven architecture. POR, 43. This is a false distinction on at least two levels. First, neither Hiroishi nor Khan pigeonhole their inventions into only one of these architectures. And second, the patent claims do not recite adherence to either of these architectures.

Moreover, CellSpin cannot credibly argue that its claims require “event driven” behavior and exclude “request driven” behavior, because this argument is squarely undermined by the text of claim 1, which requires “receiving a **request** to get new data,” “receiving a **request** to enable event notifications,” and “sending a **request** to the Bluetooth enabled data capture device, to get new data for transfer.” TTI-1001, cl.1; TTI-1048, ¶¶56-64.

The POR also suggests that in Hiroishi, a separate “thumbnail transmission instruction” must be sent for “every new image requested by the phone.” POR, 45-46. This point is moot, as the claims do not exclude such a structure; but regardless, Hiroishi does not require such a limited operation. Hiroishi specifically discloses the transmission of image data containing multiple thumbnails. TTI-1011, [0081]. Moreover, and regardless, nothing in the claims requires the receipt of more than one notification signal. And, nothing in Hiroishi would “defeat the purpose of enabling event notifications in the first place,” as the POR asserts. POR, 46. The “enabling” operation allows the mobile phone to have times when it will receive and process images and have other times when it will not. Hiroishi likewise has times when its phone is able to receive images and other times when it is not.

Finally, CellSpin argues that “event notification” in an event driven architecture is “broadcast-like” as opposed to “direct.” POR, 48. This assertion undermines CellSpin’s overall argument because the patent is not “broadcast-like.” On the contrary, a POSITA would understand that the patent uses a paired Bluetooth connection, which is direct and not “broadcast-like.” TTI-1048, 28-51, 56-64. The term “broadcast” is not even found in the patent.

C. Ground 1: Polling (Claim 12)

The POR is incorrect when it states that “Hiroshi and Khan and Bluetooth do NOT disclose Polling for new data.” POR, 45-49. The Hiroishi-Kahn-Bluetooth

combinations clearly disclose polling. In the '381 patent, polling includes sending a request to the Bluetooth enabled capture device to check if the acquired new-data is available for transfer. This limitation is met by Hiroshi's request for thumbnails. Specifically, in the combinations, Hiroishi's use of Bluetooth satisfies the claim limitation. Polling is core to Bluetooth. Bluetooth operates using a master-slave model. TTI-1019, 223-372. The master controls the link and uses a polling mechanism to communicate with slaves. *Id.* For example, see the "Polling in the active mode" section where a "master normally attempts to poll a slave ... no less often than once every T_{poll} slots." TTI-1019, 332. TTI-1048, 65-70.

As Mr. Lett explains, a POSITA would have recognized that the software applications and other application layer programs cannot communicate directly with other application layer programs (or other lower layer programs) on another device using Bluetooth; the application layer relies on the lower layers to do so. TTI-1048, 65-70. Claim 12 recites the "mobile software application for the Bluetooth enabled cellular phone configured to poll the Bluetooth enabled data capture device for the new-data." But the '381 patent does not teach any application layer programs on the capture device.

A POSITA would have understood that, in claim 12, the mobile software application would cause the lower layers of the mobile device to perform polling for new-data. TTI-1048, 65-70. Thus, in '381 patent, a POSITA would have

recognized that the application causes polling, but that polling occurs through other, lower layers of the stack. *Id.*

D. Ground 1: HTTP Limitations

The Board is correct when it says that CellSpin “reads Kahn too narrowly.” Paper 8, 44. Kahn expressly teaches the use of HTTP for communication between the mobile phone and the image management server, which is a web server. *E.g.*, TTI-1017, [0006], [0018], [0052], [0056]-[0058], [0063], [0065], [0082], [0086]. Further, Kahn broadly teaches that the upload process “occurs via wireless communication technique.” *Id.*, [0057]. A POSITA would have known that HTTP was the protocol used to communicate with web servers and would have known that the typical image server would be a web-based server so that typical browsers could access it. *See, e.g.*, TTI-1017, [0056]-[0058]; TTI-1014, [0026]; TTI-1021, 5:49-56 (cited by Paper 8, 44-45); TTI-1048, 52-55.

In addition, the WAP MMS Architecture Overview (EX2007) on which CellSpin relies undermines CellSpin’s argument. The WAP document shows that even in a WAP environment, HTTP is used to reach publishing web servers. EX2007, 15. Specifically, WAP systems used something called a “WAP Gateway,” which transmits the payload to a web server using HTTP:

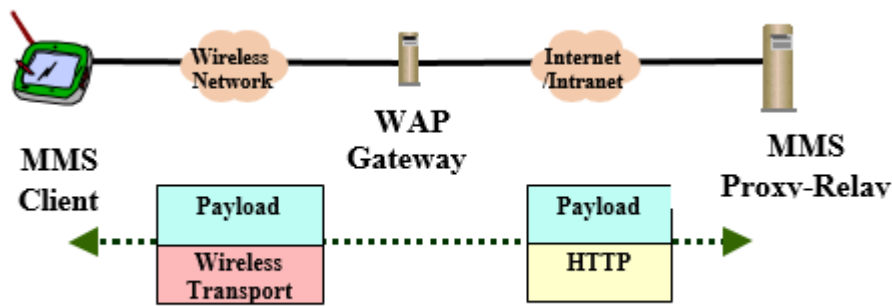


Figure 3 Logical Architecture of MMS Client to MMS Proxy-Relay Link

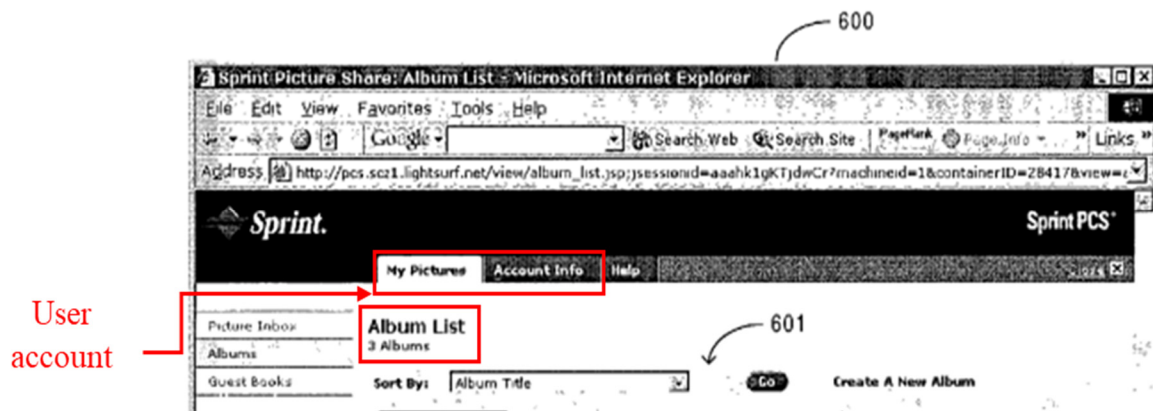
EX2007, 15.

“The network view also shows a payload that is carried by the wireless transport and HTTP.” *Id.*; see also TTI-1046, FIG. 1, 4:58-60 (“Information provided to WAP gateway 20 by IP network 16b is generally in a hyper-text transfer protocol (HTTP)/ hyper-text markup language (HTML) format”). Moreover, CellSpin’s expert reconfirmed that WAP Gateways were used in the prior art for mobile devices to communicate with web servers. *E.g.*, TTI-1039, 28-29:5. A POSITA reading Kahn would have understood that HTTP was used for the phone-to-web server communications, and Kahn’s disclosure of WAP does not hold the significance CellSpin attributes to it.

Moreover, CellSpin’s Expert’s contrary conclusions (and indeed all opinions in his declaration) are entitled to no weight as they are provided in a declaration that lacks the required attestation. 35 U.S.C. 25(b).

E. Ground 1: User Profile

Even when applying CellSpin’s incorrect construction of “user profile,” Kahn still teaches it. Kahn teaches that the image manager database is keyed to the user ID, location ID, and other information associated with user. TTI-1017, [0098]. Also, Kahn describes a user interface that shows the user’s My Pictures tab as well as Account Info tab:



TTI-1030, ¶757 (showing FIG. 6, annotated).

A POSITA reading Kahn would have recognized that the User Account tab, coupled with the databased keyed to user ID and location ID would have satisfied even CellSpin’s overly-restrictive construction. TTI-1048, ¶¶23-27.

As discussed in the Petition, Kahn’s advertisements are based on the user profile. *E.g.*, Petition, 26-27, 55. First, the POR is incorrect that Kahn does not have a “user profile.” Even under their narrow proposed construction, as discussed above, Kahn describes a user profile that includes a collection of information about the user, including user ID and location information. TTI-1017, [0098]. But Kahn describes

the image management server using the location information from the user profile to provide location-based promotions through the mobile phone. TTI-1017, [0051], [0087] (describing that promotions are sent to the host device (i.e., cellphone)).

F. Ground 2: Client Application—Mixing and Matching Features from Disparate Embodiments Cannot Support Priority Claims

The POR's attempt to find priority by mixing and matching features from disparate embodiments, across different disclosures, cannot support a claim of priority for limitations added to the claims by amendments. The Petition lays out the legal standards for the written description requirements to support claim amendments, as well as the statutory requirements for incorporation by reference. Petition, 8-16. For example, the Petition points out that the incorporation by reference was improper. Petition, 11-14. 37 C.F.R. § 1.57(d); *SharkNinja Operating LLC, et al. v. iRobot Corp.*, IPR2020-00733, Paper 31, 19 (PTAB Oct. 4, 2021). Additionally, the Petition explains that the mixing and matching of features from disparate embodiments is improper without express disclosure directing the reader to do so. Petition, 11-16; *Intuitive Surgical, Inc. v. Ethicon LLC*, IPR2019-01110, Paper 30 at 10-15 (P.T.A.B Nov. 20, 2020). The POR does not appear to disagree with these standards.

Instead, the POR points to the prosecution history of the '381 patent, and the '121 patent, to show that the examiner believed that the claim amendments were

supported by the '802 application. POR, 64-71. But whether the Examiner believed that the '802 application had support the features of the claim amendments is not the issue. Indeed, the '802 application provides the only written description support for the limitations in question. POR, 66-68. The issue here is that the Examiner erred by failing to recognize that neither the '381 patent, nor the '802 application, directed the reader to any disclosure to support “mixing and matching of embodiments.” Petition, 15-16; *see, e.g., Intuitive*, IPR2019-01110, Paper 30 at 10-15 (rejecting the mixing and matching of embodiments without a disclosure directing the reader to do so); *Research Corp. v. Microsoft Corp.*, 627 F.3d 859, 870 (Fed. Cir. 2010); *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1571-72 (Fed. Cir. 1997).

While it would have been obvious to combine the disclosures of Singh129 and Singh906 as explained in Ground 2, it is not enough that a claimed feature be “an obvious variant of that which is disclosed in the specification.” *Lockwood*, 107 F.3d at 1571-72; Paper 2, 13-14. CellSpin does not address the Petition’s argument that it is improper to mix and match embodiments without disclosure directing the reader to do so. Paper 2, 13-14 (citing *Intuitive*, IPR2019-01110, Paper 30 at 10-15). Given that neither express nor inherent disclosure supports the claimed limitations, CellSpin’s failure to address the legal impropriety of combining disparate embodiments should be deemed a waiver of this issue, and should result in a

disposition in Petitioner's favor. Paper 9, 10 (stating that "any arguments not raised in the response may be deemed waived"), TTI-1037, 52.

The POR attempts to cloud the issue of lack of written descriptions support by pointing to the prosecution history of the '381 patent. But the prosecution history is neither conclusive nor persuasive to show that the specification included written description support for the limitations in question. Note that during prosecution of the '121 patent, the Examiner rejected the claims under §112 because "authentication credentials and global position system information" was not supported by the specification. TTI-1006, 312-313. Then, more than two years later, the Examiner rejected the claims of the '381 patent, again under §112 for lack of written description support for "display a mobile advertisement inside the mobile software application" and "touch-based advertisement targeted to a user." TTI-1008, 78-80. In both scenarios, the Applicant responded to the rejection by directing the examiner to the 802 Application. TTI-1006, 271; TTI-1008, 40. The Por's argument that the Examiner was "already aware of the Singh906 incorporation" is, therefore, incorrect and unsupported by the intrinsic record.

V. CONCLUSION

Petitioner has established that the Challenged Claims are unpatentable and respectfully requests that the Board find the same.

Respectfully submitted,

Date: April 11, 2025

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CERTIFICATION UNDER 37 C.F.R. § 42.24

Under the provisions of 37 CFR § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Petitioner Reply to Patent Owner Response totals 4,639 words, which is less than the 5,600 allowed under 37 CFR § 42.24(c)(1).

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR § 42.6(e)(4), the undersigned certifies that on April 11, 2025, a complete and entire copy of this Petitioner's Reply to Patent Owner's Response and Accompanying Exhibits were provided by email to Patent Owner by serving the email correspondence addresses of record as follows:

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