

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TIKTOK INC.
Petitioner,

v.

CELLSPIN SOFT, INC.,
Patent Owner

IPR2024-00770
Patent 8,904,030

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

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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 Excerpts from the Prosecution History of the ’030 patent
- TTI-1003–1008 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 Certified Translation of JP 2005-303511 (“Takahashi”)
- TTI-1015 Certificate of Translation for Takahashi
- TTI-1016 Original Japanese Publication of Takahashi
- TTI-1017 U.S. Patent App. Pub. No. 2004/0004737 to Kahn (“Kahn”)
- TTI-1018 RESERVED
- TTI-1019 Bluetooth™ Core Specification 2.1 + EDR (“Bluetooth”)
- TTI-1020–1029 RESERVED
- 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.)
- 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 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

TABLE OF AUTHORITIES

Google, Inc. v. Ji-Soo Lee, IPR2016-00022 and IPR2016-00045, Paper 25 (PTAB November 23, 2016).

Realtime Data, LLC v. Iancu, 912 F.3d 1368, 1375 (Fed. Cir. 2019).

Lockwood v. American Airlines, Inc., 107 F.3d 1565, 1571-72 (Fed. Cir. 1997).

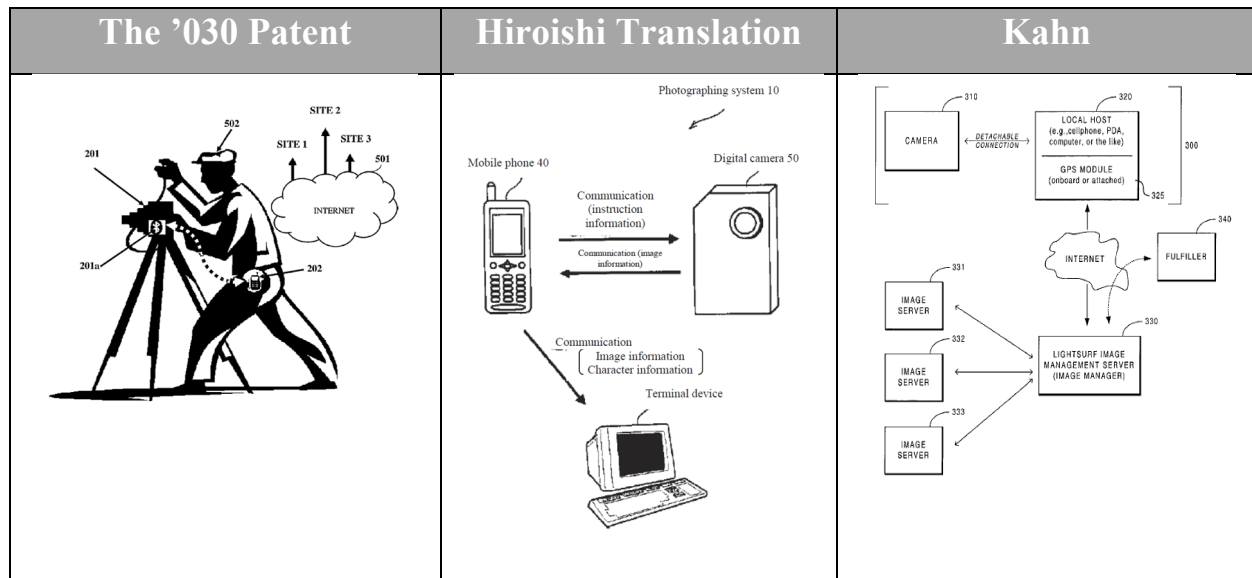
Ariad Pharms. Inc., v. Eli Lilly & Co., 598 F.3d 1336 (Fed. Cir. 2010).

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 IPR2024-00770, which challenges the validity of U.S. Patent No. 8,904,030 (“the ’030 patent”). CellSpin’s arguments still lack merit and should be rejected for the reasons below.

The ’030 patent relates to wirelessly transferring data from a device to a server on the Internet using a cellphone (which has an internet connection whereas the device does not). The Petition (Paper 2) demonstrates that the claims are unpatentable based, at least, on the 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 Unless otherwise indicated, Petitioner’s exhibit cites refer to CellSpin’s post-institution exhibits.



The Petition explained that other items found in the claims are simply copied from the prior art Bluetooth specification. There is nothing inventive about the '030 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. The POR is incorrect because the combination of claimed elements represents nothing more than a Bluetooth default: devices using Bluetooth 2.1 operate 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 proclamed priority document, which qualify as prior art

because the claims are not entitled to the priority date. In response, the POR seeks to establish support in the priority document, but it fails as none exists. Indeed and unsurprisingly, the cited portions do not disclose the recited claim limitations.

The Petition also addresses unpatentability on a claim-by-claim basis, but the POR does not respond in kind. 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 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 limitations, without demonstrating the presence of lexicography in the '030 patent. Instead, the POR relies on questionable extrinsic evidence. As explained below, these limitations should be given 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 the District Court is in the process of carrying out claim construction. POR, 5. Not so. The litigation is stayed pending the

outcome of these IPRs, and the court has stopped deliberation on claim construction. TTI-1047. 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, 5-7. This is misleading. Petitioner proposed preliminary constructions for about twelve unique claim features for the '030 Patent. EX2002, 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. 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).

CellSpin advances overly narrow, unsupported constructions of various claim limitations and seeks to import a host of constructions from stayed co-pending 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. 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. “object”

CellSpin proposes: “An object can be a variable, a data structure, a function, or a method. Object contains value and is referenced by an identifier.” POR, 14. This construction is incorrect and unsupported by the evidence.

The term at issue in the '030 patent is “new data object,” not just “object.” *E.g.*, TTI-1001, claim 1. And contextually, the claims involve transferring a “new data object” between devices over a wireless network. CellSpin's construction ignores this context and instead relies on a Wikipedia definition pertaining to object-oriented programming. POR, 16 (citing EX2021). CellSpin's approach highlights the dangers of unquestioning reliance on dictionaries. CellSpin's definition is from the wrong field and is plainly incorrect. For example, the

claimed “new data object” is, at the least, data and associated data, and thus, not a software “function” or “method.” TTI-1048, ¶¶4-15.

CellSpin also purportedly cites to a Microsoft Computer Dictionary entry, but again, this definition is offered in the context of object-oriented programming—the wrong context. POR, 16-17. Object-oriented programming is not relevant to the claimed “new data object.” TTI-1048, ¶¶4-15.

Turning to the intrinsic record, the term “new data object” is not found in the specification. Instead, when discussing transferring an image from the capture device to the mobile device, the specification refers to different “file transfer protocols,” including OBject EXchange (OBEX) and Media Transfer Protocol (MTP). TTI-1001, 4:22-5:3; *see also* Paper 8, 20 (“The specification clearly describes the transfer of files between the data capture and mobile devices.”).

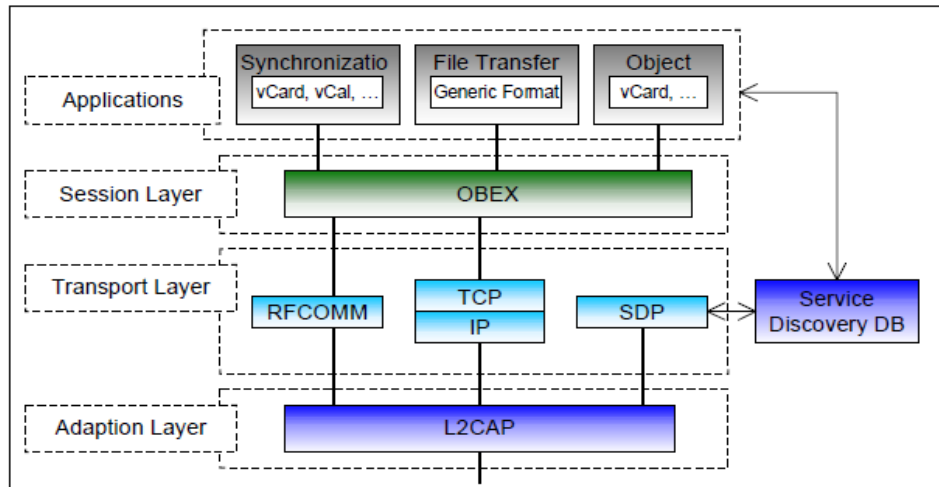
The specification does not distinguish between a “file” and an “object” when discussing file transfer protocols; and neither do OBEX and MTP. For example, OBEX states that the term “object” has “no lofty technical meaning” and OBEX “is designed to transfer flexibly defined ‘objects’; for example files.” EX2009, 8; TTI-1048, ¶¶4-15 (describing that an object is a more generic term that includes a file an example). CellSpin’s expert, Mr. Gajendragad, admitted that the broad definition of “object” in OBEX “helps shed light” on the meaning of “object” in

the patent. TTI-1039, 24:10-14. Indeed, Gajendragad stated that it is “possible to send/transfer a ‘File’ using OBEX protocol.” EX2009, 17.

The OBEX evidence is contrary to CellSpin’s argument that the term “object” supposedly excludes files. Moreover, CellSpin’s argument runs contrary to its proposed construction, which does not exclude files from being objects. A file is data within a specific structure recognized by a file system, and thus would fall under the “data structure” aspect of CellSpin’s construction.

Likewise, MTP, also cited in the patent, uses object models and does not exclude files from the definition of “object.” Indeed, MTP defines “object” to be the combination of binary file and metadata. TTI-1040, 18; TTI-1048, ¶¶4-15. Thus, there is no basis to exclude files from being within the category of “objects.” CellSpin argues that MTP is a “non-object-based method.” POR, 14-15. That is incorrect. The patent specification lists both OBEX and MTP as file transfer protocols and they both discuss “objects.” TTI-1001, 4:41-44; TTI-1040, 18.

The POR references a figure from Bluetooth v.1.1 (EX2016) and argues that the figure demonstrates that “file” and “object” are different. POR, 18-19. Specifically, the POR points to Figure 1.1, reproduced below:



POR, 19

The POR is incorrect and misstates the teaching in the figure because it does not distinguish “files” from “objects.” The “Object Push” application is used to “push” small amounts of data, and OBEX describes Object Push as “a basic form of file transfer.” EX2009, 44, 50 (§7.1 – Simple Put – file/note/ecard transfer); *see also* EX2016, 433 (§2.2.3 Put Operation for pushing an object).

In sum, the term “object” includes files, but is broader than the term “file:” A file is an exemplary object, and other things (such as a vCard) are objects as well. TTI-1048, ¶¶4-15. Accordingly, the POR has not identified any basis from the intrinsic or extrinsic record to interpret the term “data object” to exclude a file. *See* Paper 8, 19-20.

D. “along with”

CellSpin construes “along with” to mean “in addition to.” This is both incorrect and unnecessary. It is incorrect for the reasons already articulated by the Board: the “passage Patent Owner cites from the ’802 application ... does not suggest any reason to depart from the term’s ordinary meaning.” Paper 8, 17-18. The Board explained that the plain meaning encompasses a user ID sent along with new data as part of a file name associated with that data and that “there is no evidence from the intrinsic record that suggests a reasons to depart from that ordinary meaning.” *Id.* Petitioner and its expert, Mr. Lett, concur. TTI-1048, ¶¶16-22.

Moreover, the dictionary on which CellSpin relies has two definitions, and the POR ignores the second definition: “together with.” TTI-1048, ¶¶16-22. Neither “in addition to” or “together with” excludes “inside” as CellSpin argues. For example, a photograph is given along with a frame, even though the picture is inside the frame. *Id.*

Next, the dictionary fails to inform meaning attributed by a POSITA at the critical date, and we are therefore left by CellSpin without evidence of its legal relevance. POR, 12-13; *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 986 (Fed. Cir. 1995) (“Rather the focus is on the objective test of what one of ordinary skill in the art at the time of the invention would have understood the term to

mean”)².

Finally, the construction does not help CellSpin. In the prior art, the image data is sent “along with” the filename that serves as the user identifier under any definition of “along with.” *See, e.g.*, TTI-1014, [0066].

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 not use a paired connection. POR, 29, 37. 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, ¶¶47-50.

Therefore, at the critical date, in 2007, a POSITA would not have felt any obligation to follow BIP (assuming the POSITA would have known about BIP in the first place). TTI-1048, ¶¶47-50.

² All emphasis is added unless otherwise noted.

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, 16. 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, ¶¶31-37, 44, 47-50. Thus, BIP operates over a paired connection.

IV. RESPONSES TO SPECIFIC ARGUMENTS IN THE POR

A. Ground 1A: 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, 27-28. That is legally moot, as the claims merely contemplate a paired configuration, without addressing or precluding other implementations. And to this point, CellSpin fails to regard the impact of disclosed Bluetooth defaults enabling secure communications and other context revealed through the teachings of the prior art. 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 images being transferred from camera to phone. *E.g.*, Petition, 24-25. A paired connection is the default type of connection on Bluetooth. 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, ¶¶31-37, 44. 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, ¶¶31-37, 44; TTI-1019, 1273, 1286; 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.*

Indeed, as Mr. Lett explains, unsecure communications are only present in the Bluetooth 2.1 for backward compatibility. TTI-1048, ¶34. 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, ¶50.; 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. 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, 39 (citing TTI-1019, 1273, 1286).

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, ¶¶35-51; 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, ¶¶28-30. 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.*, ¶¶36-51; Petition, 25; TTI-1019, 131-132.

2. *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, 29. As stated earlier, BIP contemplates a paired connection, and the BIP is not relevant anyway.

In fact, 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, ¶¶30, 41-42. 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. *Id.* 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. *Id.*; TTI-1011, [0044], [0107].

B. Ground 1A: New Data Object

The POR asserts that the Petition’s mapping of the new data object onto a “file” does not work. The POR is wrong. First, a file is an “object” (the term “object” being more generic than “file”). *Supra*, §II.C. (citing TTI-1048, ¶4-15). Second, CellSpin’s proposed (erroneous) construction, even if accepted over Petitioner’s objection, would encompass a “file” because a file is a data structure.

Takahashi discloses a “new data object” as recited by the claims, even under CellSpin’s erroneous construction of “object.” Takahashi discloses that the picture (new data) is saved in a file (new data object) along with a filename (data about the

new data) and a timestamp (data signal notification). TTI-1014, [0055], [0070].

This mapping applies to CellSpin's constructions because a file is a structure for organizing data, and it has value (the picture) and an identifier (filename). *Id.*; TTI-1048, ¶14.

C. Ground 1A: Along With

The POR argues that if its narrow definition of “along with” is adopted, then Takahashi would fail to show a user identifier “along with” new data. POR, 55-56. That is incorrect. Takahashi discloses the limitation even under CellSpin's narrow (and erroneous) construction.

First, CellSpin fails to account for the Petition's mapping of the prior art to the claims. The “new data” is not the “file,” but the picture data inside the file. The user identifier is therefore sent “along with” this new data even if the term “along with” is construed to mean “in addition to.” *See, e.g.*, Petition, 14, 17-18, 45, 49, 56, 80. The filename is not “inside” the new data.

Second, the ordinary meaning of “along with” is broad and would not exclude data sent “inside of” other data, like in the picture frame example, in the claim construction section above. TTI-1048, ¶¶16-22. Thus, even if Takahashi were to have sent the user ID “inside” the new data (it did not), that hypothetical Takahashi would nonetheless meet the claims. *Id.*

D. Ground 1A: Event Notifications

The POR's discussion distinguishing event-driven and request-driven architectures is not applicable to the claims of the '030 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 they would have been understood by a POSITA to have been pertinent to the Bluetooth link in Hiroishi, Takahashi, Kahn, or the patent. POR, 43, 46-48.

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." POR, 43, 46-48. 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, ¶¶60-62.

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]. 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.” *See*, TTI-1048, ¶81; EX2009, ¶¶107-108. The term “broadcast” is not even found in the patent.

E. Ground 1B: New Data Object

See, supra §IV.B. Kahn discloses a “new data object” under either construction. Kahn discloses that the picture (new data) is saved in a file (new data object) along with location ID (data about the new data) and a timestamp (data signal notification). TTI-1017, [0059], [0060]. This mapping applies to CellSpin’s constructions because a file is a structure for organizing data, and it has a value (the encoding of the picture as the payload within the file structure) and an identifier (unique image identifier). *Id.*, [0058]; TTI-1048, ¶15.

F. Ground 1B: The HTTP Limitations

The Board is correct when it says that CellSpin “reads Kahn too narrowly.” Paper 8, 42; TTI-1017, [0052]. 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]. A POSITA would have known that HTTP was the protocol used to communicate with web servers and that the typical image server would be web-based so that typical browsers could access it. *See, e.g.*, TTI-1017, [0056]-[0058], FIG. 6; TTI-1014, [0026]; TTI-1021, 5:49-56 (cited by Paper 8, 41-42); 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.

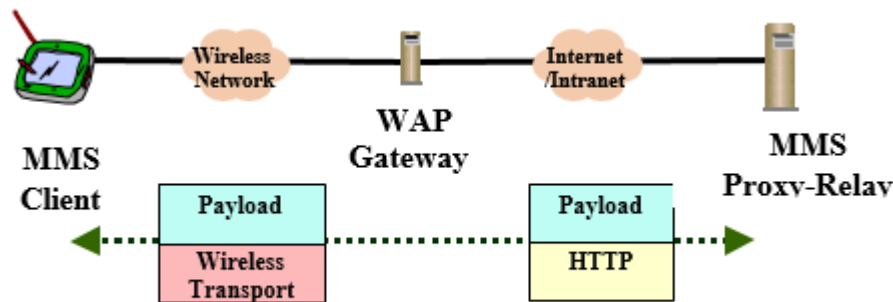


Figure 3 Logical Architecture of MMS Client to MMS Proxy-Relay Link

EX2007, 15.

The “WAP Gateway” transmits the payload to a web server using HTTP. *Id.*; TTI-1046, FIG. 1, 4:58-60. 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 at least used for the phone-to-web server communications, and Kahn’s disclosure of WAP does not hold the significance CellSpin attributes to it. TTI-1048, ¶¶52-55.

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).

G. Ground 2A & 2B: No priority due to “Supported Data Capability” Limitations

The Petition points out that claims 1 and 12 cannot have an early priority date because the priority documents fail to disclose “sending a message, corresponding to supported data capability.”³ CellSpin asserts that the patent’s and priority document’s vague reference to “handshaking” protocols is sufficient to disclose support in the priority documents. POR, 70 (*citing* TTI-1001, 4:59-62). The reference “handshaking” in the priority document and ’030 patent does not disclose “sending a message, corresponding to supported data capability.” Whether “handshaking” protocols sent such messages or not, CellSpin cannot credibly content that all handshaking protocols did so. TTI-1048, ¶¶73-82. Nor has CellSpin offered evidence establishing that a POSITA would understand that this vague reference to handshaking, without more, would refer to sending a message corresponding to supported data capability. Indeed, the mere mention of “handshaking protocols” does not disclose such messages, and obviousness is not the relevant test for priority. *E.g., Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1571-72 (Fed. Cir. 1997) (“Entitlement to a filing date does not extend to subject matter which is not disclosed, but would be obvious over what is expressly

³ In fact, the ’030 patent’s specification likewise fails to disclose such a message, and thus lacks written description, but that is not an issue for IPR.

disclosed. It extends only to that which is disclosed.”). Thus, CellSpin has failed to establish that the vague mention of “handshaking” establishes possession of the claim limitation, as required for priority.

The Wikipedia page cited by CellSpin confirms that the sending of a message corresponding to supported data capability is not inherent in a handshake protocol. For example, the Wikipedia page states that a “simple handshake protocol might only involve the receiver sending a message meaning ‘I received your last message and I am ready for you to send me another one.’” EX2012, 1. Even a more complex handshaking protocol involves asking “the receiver if it is ready to receive or for the receiver to reply with a negative acknowledgement.” *Id.* Thus, a POSITA would not have understood the handshake protocol to inherently include sending a message corresponding to supported data capability. TTI-1048, ¶¶73-82.

Notably, CellSpin cites to a “TLS handshaking protocol” which does involve the exchange of capabilities. However, the priority documents (and patent) do not cite to the “TLS handshaking protocol,” but merely state that a “handshaking protocol” is used. The TLS protocol is a client server protocol, whereas the “handshaking protocol” in the challenged patent concerns arranging the timing for data transfer in “push mode” between a camera and mobile phone. TTI-1001, 4:55-62.

Moreover, because the reference to a “handshake” protocol in the specification concerns “push mode,” it is not applicable to the limitation in question. Claim 1 of the ’030 patent (which contains the limitation concerning supported data capability) involves a request for data and the transfer of data through a number of back and forth steps, and is not a “push mode” operation. TTI-1048, ¶¶73-82.

Also, where handshaking occurs, it is normally the first step in a communication. However, in the claims, the sending the supported data capability occurs **after** the paired connection is established. *E.g.*, EX2005, 4 (Claim elements must be in an ordered combination). That would not be part of a handshaking process (if any). EX2012, 13-14; TTI-1048, ¶¶73-82.

Finally, the “handshake protocol” described by the specification is an application-layer process, whereas the evidence cited by CellSpin describes transport layer processes. *E.g.*, EX2012, 12 (TLS handshake protocol). For this additional reason, CellSpin’s attempt to read too much into the words “handshake protocol” fails. Details of specific transport layer handshake protocols cannot define, describe, or mandate the content to be found in an (indeed every) application layer handshake protocol. TTI-1001, 4:55-62.

The examiner’s amendment is far from conclusive (or even persuasive). The examiner’s amendment was the byproduct of an interview, the details of which

were not made part of the record. Thus, there is no way of knowing whether the applicant relied on the “handshake protocol” as support, and if so, what representations the applicant made about the “handshake protocol.” All the record indicates is that following an interview, the examiner entered an amendment concerning multiple limitations. There is no basis to conclude that the Examiner found support in the “handshake protocol” (which does not offer support), and CellSpin points to no other portion of the priority documents for alleged support for its early priority date.

H. Ground 2A & 2B: Encrypting new data / new data object is not disclosed in the 030 specification

The '030 patent does not disclose the steps of encrypting the new data [object] by the camera and obtaining the new data [object] from the encrypted data by the mobile device, as claimed. CellSpin relies on a program in [10:54-56], but that program is on the mobile phone, and not on the camera, and so it does not provide support. POR, 80. The '030 patent specification does not describe an application or program residing on the camera that performs encryption, much less one that actually performs encryption of the new data / new data object.

I. Ground 2A & 2B : No Priority Due to Time-stamp Limitation

The Petition points out that the claimed “timestamp in the data Object” is not supported in the priority documents. And the obviousness of using a prior art time-

stamp as a data signal notification is not relevant to questions regarding sufficiency of written description, as obviousness is not the legal standard here. *E.g.*, Paper 8, 44 (quoting *Ariad Pharms. Inc., v. Eli Lilly & Co.*, 598 F.3d 1336, 1351). The claims require that the time-stamp correspond to “a time when the new data was acquired.” *E.g.*, TTI-1001, 13:20-21. Because CellSpin cannot find such a time-stamp within the '030 patent itself, CellSpin reaches outside the patent to the OBEX specification. However, even if OBEX can legitimately be relied upon for proof that the inventor had possession of the invention (a dubious, contested proposition), OBEX does not disclose the limitation. Instead, OBEX discloses a time-stamp that indicates the “time that the file was last modified.” POR, 79 (citing EX2009, 73).

When a file “was last modified” says nothing about when that new data was acquired, or even whether new data was “acquired.” Thus even if OBEX were properly considered for priority, it offers no support for the time-stamp limitation. As the Board stated, the “written description requirement requires that a patent’s specification ‘contain a written description of the invention . . . in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains . . . to make and use the same.’” Paper 8, 44 (quoting *Ariad Pharms. Inc.*, 598 F.3d at 1351).

According to CellSpin, it would have been obvious to use time as a generic data object header, and from that limited disclosure, the patent specification provides

sufficient written description for a time-stamp that is a data signal notification and corresponds to the time when the data was acquired. POR, 78-79. This misapplies the law. As noted, a “description that merely renders the invention obvious does not satisfy the [written description] requirement.” Paper 8, 44 (citing *Ariad Pharms.*, 598 F.3d at 1351-1352). And even OBEX indicates that a “time” header is merely “recommended.” EX2009, 73. OBEX’s recommendation to use time is not sufficient for a POSITA to “immediately discern” that the inventor was in possession of the concept that the time-stamp acts as a data signal notification and corresponds to a time when the new data was acquired.

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

/W. Karl Renner/

W. Karl Renner, Reg. No. 41,265

Kim H. Leung, Reg. No. 64,399

Steven Katz, Reg. No. 43,706

Rishi Gupta, Reg. No. 64,768

Ryan O'Connor, Reg. No. 60,254

Fish & Richardson P.C.

60 South Sixth Street, Suite 3200

Minneapolis, MN 55402

T: 202-783-5070

F: 877-769-7945

Counsel for Petitioner

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 5,581 words, which is less than the 5,600 allowed under 37 CFR § 42.24(c)(1).

Respectfully submitted,

Date: April 11, 2025

/W. Karl Renner/

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Kim H. Leung, Reg. No. 64,399

Steven Katz, Reg. No. 43,706

Rishi Gupta, Reg. No. 64,768

Ryan O'Connor, Reg. No. 60,254

Fish & Richardson P.C.

60 South Sixth Street, Suite 3200

Minneapolis, MN 55402

T: 202-783-5070

F: 877-769-7945

Counsel for Petitioner

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:

René A. Vazquez, Reg. No. 38,647
Sinergia Tech. Law Group, PLLC
18296 St. Georges Ct.
Leesburg, VA 20176
Phone: (703) 989-2244

M. Scott Fuller, Reg. No. 54,716
Garteiser Honea PLLC
119 W. Ferguson Street
Tyler, Texas 75702
Phone: (903) 705-7420

Email: sfuller@ghiplaw.com
litigation@ghiplaw.com
rvazquez@sinergialaw.com

/Diana Bradley/

Diana Bradley
Fish & Richardson P.C.
60 South Sixth Street, Suite 3200
Minneapolis, MN 55402
bradley@fr.com