UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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TIKTOK INC.,
Petitioner,

v.

CELLSPIN SOFT, INC.,
Patent Owner.

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Case IPR2024-00759
Patent 8,862,757

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

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| TTI-1001 | U.S. Patent No. 8,862,757 to Singh et al. ("the '757 patent") |
| TTI-1002 | Excerpts from the Prosecution History of the '757 patent |
| TTI-1003 | Declaration of Dr. Patrick Traynor |
| TTI-1004 | Complaint, *CellSpin Soft, Inc. v. ByteDance, Ltd. et al*., Case No. 2:23-cv-496, E.D. Tex., filed Oct. 20, 2023 |
| TTI-1005 | U.S. Patent Application Publication 2005/0209927 to Aaltonen et al. ("Aaltonen") |
| TTI-1006 | U.S. Patent Application Publication 2006/0129631 to Na et al. ("Na") |
| TTI-1007 | HTTP: The Definitive Guide ("Gourley") |
| TTI-1008 | RESERVED |
| TTI-1009 | U.S. Patent Application Publication 2013/0315235 to Foo ("Foo") |
| TTI-1010 | International Publication No. WO 2008/028508 to Drescher et al. ("Drescher") |
| TTI-1011 | U.S. Patent Application Publication 2007/0174393 to Bosschaert et al. ("Bosschaert") |
| TTI-1012 | Internet Archive of Mobic.com, "Ericsson Unveils the First Bluetooth Phone," available at https://web.archive.org/web/20001002110758/http://www.mobic.com:80/, last accessed February 29, 2024. |
| TTI-1013 | RESERVED |
| TTI-1014 | RESERVED |
| TTI-1015 | U.S. Patent No. 8,041,816 to Ozaki et al. ("Ozaki") |

| | |
|---|---|
| TTI-1016 | Japanese Patent Application Publication No. 2005-303511 to Takahashi Susumu and Certified Translation ("Takahashi") |
| TTI-1017 | International Publication No. WO 2005/109781 to Lind et al. ("Lind") |
| TTI-1018 | U.S. Patent Application Publication No. 2008/0165982 to Hankey et al. ("Hankey") |
| TTI-1019 | Hypertext Transfer Protocol -- HTTP/1.1, June 1999 ("RFC2616") |
| TTI-1020 | U.S. Patent No. 7,181,207 to Chow et al. ("Chow") |
| TTI-1021 | U.S. Patent No. 7,333,955 to Graves et al. ("Graves") |
| TTI-1022 | U.S. Patent No. 8,095,463 to Hartmaier ("Hartmaier") |
| TTI-1023 | WAP MMS Architecture Overview Version 25-April-2001 ("MMS_1.0") |
| TTI-1024 | U.S. Patent Application Publication No. 2009/0007196 to Ganesan ("Ganesan") |
| TTI-1025 | Memorandum, Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation (USPTO June 21, 2022) ("Interim Guidance") |
| TTI-1026 | TikTok Stipulation letter regarding IPR grounds in District court litigation |
| TTI-1027 | Transcript of the Deposition of Pavan M. Gajendragad |
| TTI-1028 | Supplemental Declaration of Dr. Traynor |
| TTI-1029 | Merriam Webster definition for "along with," retrieved March 24, 2025 |
| TTI-1030 | 3GPP TS 23.140 ("MMS V6.9.0") |

| | |
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| TTI-1031 | Merriam Webster definition for "in addition to," retrieved March 25, 2025 |
| TTI-1032 | 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-1033 | Consolidated Trial Practice Guide, https://www.uspto.gov/patents/ptab/trials/practice-guides |
| TTI-1034 | lftp(1) – Linux man page, available at https://linux.die.net/man/1/lftp |

Cellspin's POR[1] arguments lack merit and should be rejected for the reasons below.

## I. CELLSPIN'S CLAIM CONSTRUCTION ARGUMENTS FAIL

### 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, 5-6. 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-1032. Thus, as 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

[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.

constructions for only eight unique claim features for the ’757 Patent in litigation. EX-2002, 5. 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-1027, 68:18-83:15, 89:15-90:22.

Finally, Cellspin’s reliance on the preliminary constructions are misplaced as the preliminary constructions are not the most current claim construction pleading. *Compare* EX-2002 *with* EX-2005. The joint claim construction statement from December 12, 2024 directly contradicts Cellspin’s assertion that Cellspin and TikTok have agreed to certain constructions (e.g., “segment” and “user identifier”). EX-2005.

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 grounds in this proceeding

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 the 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). 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:

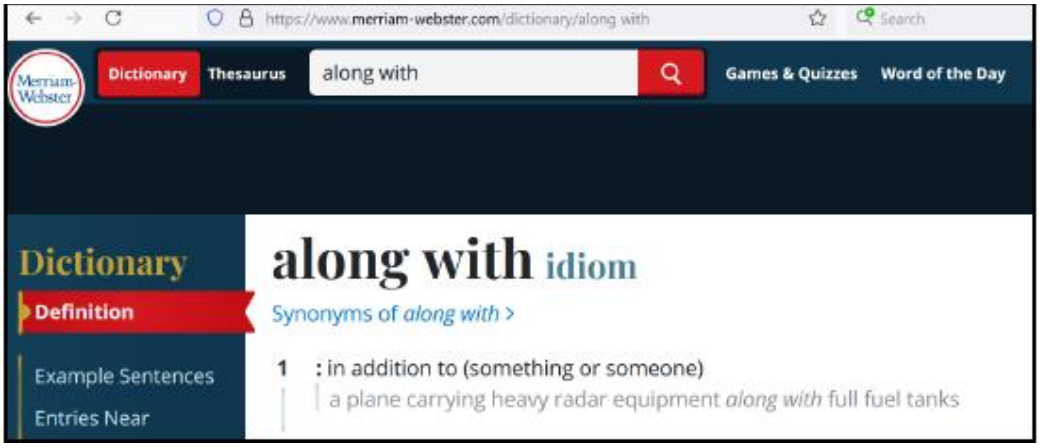
**1. Along with**

Cellspin construes "along with" as limited to "in addition to," such that elements 1[f1] and 8[f1] (and similar elements 15[e2], 15[f2], 15[n], 21[e2], 21[f2], 21[n]) would require "transferring a data segment <u>in addition to</u> said user identifier." By way of support, they reproduce a block quotation from the "'802 specification"[2] and a portion of a Merriam Webster definition. But this evidence does not support Cellspin's construction.

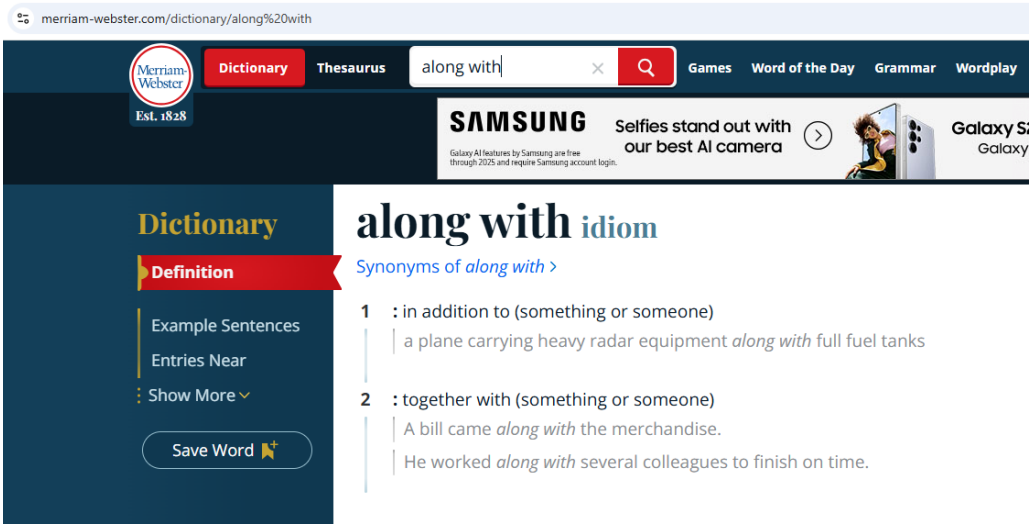
[2] Cellspin refers to this publication as the "'802 specification," yet no complete patent publication number or citation is provided and the relationship of this publication to the '757 Patent is unclear. POR, 9-12.

First, Cellspin fails to establish that the term "along with" requires construction, much less the existence within the referenced portion of the '802 specification of a redefinition or disavow of plain meaning attributable to this term. POR, 9-12. Indeed, Cellspin fails to demonstrate that the '802 specification does anything more than use the words "along with" without any explanation as to its meaning. *Id.*

Second, the portion of the Merriam Webster definition that is reproduced in Cellspin's POR is only one of multiple possible definitions for "along with" listed by Merriam Webster; contrast the sub-portion conveniently referenced by the POR against the full Merriam Webster entry, both reproduced below. POR, 11.




POR, 11




TTI-1029

If fully considering the Merriam Webster dictionary offered by Cellspin, it is apparent that "along with" is NOT limited to "in addition to," and that this term extends to other definitions, an example of which is "together with," indicating that "along with." POR, 11. No justification is given in the POR as to why "in addition to"—what Cellspin has elected—is preferable to this or other definitions ("together with"). *Id.*

Third, the Merriam 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, 9-12; *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")[3].

Thus, Cellspin has failed to justify departure from the plain and ordinary meaning of "along with," which would at least encompass the Petition's application of the prior art. TTI-1028, ¶¶9-12.

**2. Segment identifier**

Contrary to what Cellspin alleges, Cellspin and TikTok have not agreed to a construction for this claim feature. POR, 12-13; EX-2005. TikTok has argued that this feature should only be given its plain and ordinary meaning, which is consistent with the '757 Patent that neither redefines nor disavows the plain meaning of "segment identifier." TTI-1001, 5:4-11, 7:23-29, 7:52-57. Accordingly, no basis exists for contending that the claimed segment identifier precludes an identifier that identifies a data segment, which is rendered obvious by the Petition's prior art. Petition, 18-19, 56-58; TTI-1028, ¶¶13-14.

[3] All emphasis is added unless otherwise noted.

In its attempt to narrow through construction, Cellspin argues that "HTTP based identifiers must be text." POR, 12-13. But as Dr. Traynor explains, the use of text in HTTP-based identifiers is simply a design choice, and other options would have been available and thus obvious to a POSITA. TTI-1028, ¶13. For example, before the Critical Date, HTTP supported the use of numeric "cookies" to identify a user, which can be limited to simply numeric identifiers without any additional text. TTI-1007, 277-278, 283-284. Additionally, the body of an HTTP message supports binary data, indicating that HTTP messages are not simply limited to text. TTI-1007, 64.

The only evidence Cellspin provides in support of its construction is found in a paper titled, the Gajendragad Declaration, EX. 2001, ¶46. POR, 12-13. Clearly EX-2001 is styled as a "declaration," but critically, it lacks any indication that Mr. Gajendragad[4] was "warned that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. 1001)," or a statement by Mr. Gajendragad that "all statements made of the declarant's own knowledge are

[4] Throughout the POR, Cellspin erroneously refers to Mr. Gajendragad as "Dr. Gajendragad." Mr. Gajendragad confirms that he does not possess a doctoral degree and acknowledges this is a typographical error. TTI-1027, 44:16-22.

true and that all statements made on information and belief are believed to be true" as required by 37 CFR §1.68. It instead offers only that the drafter would "testify to the truth" of his opinions, without any indication that he was informed of the penalties false statements would bring. EX-2001, ¶¶6, 219. Thus, this paper is defective, leaving us with statements in EX-2001 that have no probative legal value, which should be afforded no weight. *Fedex Corp. v. Katz Tech. Licensing*, CBM2015-00053, Paper 9, 7-8 (PTAB June 29, 2015); *Bumble Bee Foods v. Kowalski*, IPR2014-00224, Paper 18, 14-15 (PTAB June 5, 2014).

Also problematic is Mr. Gajendragad's personal friendship with one of the named inventors of the '757 Patent, which calls into question the objectivity and credibility of his opinions. Mr. Gajendragad acknowledges that he has a personal friendship with Gurvinder Singh, the first named inventor of the '757 Patent (who he refers to as "Bobby" Singh), and that his involvement in this proceeding was first solicited by Mr. Singh. TTI-1027, 46:21-47:11. Mr. Gajendragad's relationship to Mr. Singh prevents him from providing objective testimony, and Mr. Gajendragad's bias is evident from answers in deposition and his conclusory statements in EX-2001. TTI-1027, 36:2-37:19 (Q: "…what do you understand your role to be in these three inter partes review proceedings?" A: "So to show the glaring shortcomings of the argument put forth by the petition."); *compare* POR, 19 *with* EX-2001, ¶60; *and compare* POR, 23 *with* EX-2001, ¶67.

And, a review of EX-2001, ¶46, clearly shows the conclusory nature of Mr. Gajendragad's statements. He fails to offer through citation reference to supporting evidence or provide any technical reasoning to support his statements. Thus, the cited paragraph is conclusory and unsupported, and adds little to the attorney arguments for which it is offered as support. The Board and Federal Circuit have rightly held that such opinions are unreliable and "entitled to little weight." *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9, 15 (PTAB Aug. 24, 2022) (precedential) (citing *Upjohn Co. v. Mova Pharm. Corp*., 225 F.3d 1306, 1311 (Fed. Cir. 2000); *In re Am. Acad. of Sci. Tech Ctr*., 367 F.3d 1359, 1368 (Fed. Cir. 2004)).

**3. User identifier**

Contrary to what Cellspin alleges, Cellspin and TikTok have not agreed to a construction for this claim feature. POR, 13; EX-2005. TikTok has argued that this feature should only be given its plain and ordinary meaning, which is consistent with the '757 Patent that neither redefines nor disavows the plain meaning of "user identifier." *See generally*, TTI-1001. As before, the only evidence that Cellspin offers in support of its assertion is EX-2001, ¶47. POR, 13. As discussed above, the statements in EX-2001 should be given little to no weight. Because Cellspin provides no credible evidence in support of its construction, this feature should be given only its plain and ordinary meaning, which would encompass an identifier

that identifies a user as taught by the Petition's prior art. Petition, 19-20,58-59; TTI-1028, ¶¶15-16.

#### 4. Web Service

Cellspin alleges that "web service" should be construed to mean "[a] modular collection of Web protocol based applications that use standard Internet protocols such as HTTP, XML, and SOAP to provide connectivity." POR, 14-15, 27. Cellspin further alleges that "web service" is "being defined" accordingly in District Court—not true, as litigation is stayed. POR, 27; *supra*, §I.A.

Again, the '757 Patent does not define or disavow any particular definition of "web service"—the specification does not even recite the phrase (as noted in the Petition). *See generally*, TTI-1001; Petition, 11. More, no credible basis has been offered to depart from the plain and ordinary meaning of this phrase, which would encompass a "service" located on or available over the "web," for example, a website as taught and rendered obvious by the Petition's prior art. Petition, 9-11; TTI-1028, ¶¶17-19.

## II. AALTONEN AND DRESCHER RENDER THE CHALLENGED CLAIMS OBVIOUS (GROUND 1)

### A. Aaltonen-Drescher renders obvious "applying a segment identifier…" (elements 1[d], 8[d], 15[l], 21[l])

As an initial matter, there are aspects of the Petition's prior art mapping that are uncontested. For example, the Petition identified segment identifiers included

in each of Aaltonen's "information packets" and its "data packets" as satisfying element 1[d]. Petition, 18 ("Aaltonen discloses that 'information packets… added to the packet stream' 'between groups or blocks 120 of one or more packets' or alternatively 'data packets'… include 'an identifier'…). Cellspin does not dispute that Aaltonen's data packets include a "segment identifier." POR, 46-55. This is impactful, as Cellspin addresses only Aaltonen's information packets and argues that identifiers must be "attached" to their respective data segments. POR, 47-48. To the extent that a segment identifier must be "attached" to its respective data segment (which the claim language does not require), Aaltonen's data packets would disclose such an arrangement as they are within each data block (and thus each identifier within the data packet is attached to the block). Petition, 18-19. Thus, this overlooked Petition mapping renders a portion of Cellspin's argument moot. POR, 47-48; TTI-1028, ¶20.

Additionally, the POR argues that the Petition maps Aaltonen's information packets to the "segment identifiers" of the claim. *See e.g.*, POR, 47. This is misleading. The Petition mapped the "identifiers" within Aaltonen's information and data packets as the claimed "segment identifiers," not the packets themselves. Petition, 18. This is a meaningful distinction, as the identifying information within Aaltonen's packets is not limited by Aaltonen to describing their packets, but is also credited by Aaltonen for describing the data blocks associated with their

packets. *Id*.; TTI-1005, ¶[0103] ("each information packet can include a table uniquely identifying the block of packets before or after the respective information packet"); TTI-1028, ¶21. As discussed below, these data blocks are distinctly application layer constructs. *Infra*, §II.C.

Contrary to Cellspin's contention otherwise, Aaltonen-Drescher renders obvious the claims, even if narrowed based on Cellspin's proposed construction. For example, Aaltonen discloses that segment identifiers can include "a table uniquely identifying the block of packets" ("a text string that identifies uniquely a data segment"). Petition, 18-19; TTI-1005, ¶[0103]; *supra*, §I.B.2. Cellspin alleges that identifiers in packets can only be binary, and thus cannot be text. POR, 54-55. The basis for this argument is Cellspin's improper characterizations of Aaltonen - that Aaltonen's data packets must be User Datagram Protocol (UDP) packets and their associated segment identifiers must be cyclic redundancy codes (CRC). *Id*. Not so. Aaltonen clearly indicates that UDP is only one possible protocol that can be used, and CRC is only an example method of segment identification. TTI-1005, ¶¶[0102]-[0103] ("In accordance with various protocols, *such as* the User Datagram Protocol (UDP) …"). Aaltonen also clearly indicates that there are alternatives to CRC, which Dr. Traynor confirms. *Id*; TTI-1007, 278-296; TTI-1028, ¶22. Accordingly, to the extent CRC has any relevance to whether a segment identifier would qualify as text, Aaltonen describes embodiments where CRC is

not even used as the segment identifier. *Id*. Accordingly, it would have been to a POSITA that Aaltonen's segment identifiers (e.g., tables) are not limited to binary data and nothing more. TTI-1028, ¶23.

### B. Aaltonen-Drescher renders obvious "applying a user identifier…" (elements 1[e], 8[e], 15[e1], 15[f1], 15[m], 21[e1], 21[f1], 21[m])

The POR appears to argue that the Petition mapped a Uniform Resource Identifier ("URI") to a user identifier. POR, 25-26, 63-64. The Petition never made such an argument. Petition, 19-20. The Petition instead turned to Drescher for this limitation, which as discussed below, renders obvious user identifiers in each communication between the server and client. *Id*.; TTI-1003, ¶¶60-61. Accordingly, Cellspin's URI arguments attack a strawman. POR, 25-26, 63-64.

Cellspin argues that Drescher's user ID is "only sent in the initial request message to authenticate the user for that HTTP Session." POR, 31-33 (emphasis omitted). However, this directly contradicts Drescher's explicit disclosure. TTI-1010, 26:32-27:2. Drescher explicitly discloses sending its user identifier with each data chunk. *Id*. Specifically, Drescher discloses that although the identity of a user need be shared only once, it "may be convenient nonetheless" to include the user's identity in "additional" messages. *Id*. Thus, Cellspin's argument that the user's identity is "only" sent in the initial message is belied by the reference's very disclosure. *Id*.; TTI-1028, ¶24.

Cellspin's alleged support is also defined as much by what it doesn't say, compared to what it does. POR, 32-33 Cellspin also attempts to support its argument by reading the Drescher's silence as an affirmative disclosure. POR, 32-33. Specifically, Cellspin contends that Drescher's FIGS. 8A and 8B constitute undisputable evidence that user identification is not transmitted with subsequent messages in Drescher, but these figures in Drescher do not speak to subsequent messages, nor do they indicate limitations on acceptable message formats. Indeed, nothing in the figures or supporting disclosure actually supports Cellspin's interpretation that user identifying information cannot be included in any subsequent messages, or that FIGS. 8A and 8B are the only acceptable message formats. *Id*.; TTI-1010, 36:24-33, FIGS. 8A, 8B. Drescher itself indicates that the syntax of these messages is simply an "example." TTI-1010, 7:23-24. In light of Drescher's disclosure elsewhere, as discussed above, a more consistent interpretation is that user identification is simply not pictured in FIG. 8B, but may nonetheless be included, e.g., in other allowable message formats. TTI-1010, 26:32-27:2, FIG. 8B; TTI-1028, ¶25.

Additionally, even if Cellspin's proposed construction for user identifier was accepted (it should not be), the prior art would still render obvious this construction. Indeed, Cellspin does not even allege that Drescher does not satisfy its proposed construction, and Cellspin attacks only Aaltonen in isolation

(improperly assuming identifiers must be CRC). POR, 55-63; *supra*, §I.B.3. But Cellspin's argument is exposed when considering Drescher's indication that its user identifiers include a "name particularising the… [party] involved in the request" ("a text string that identifies uniquely a user of a web service …"). Petition, 19; TTI-1010, 25:32-26:21, 34:13-35:4, 35:26-36:21. A "name" is most commonly represented by text, as opposed to binary data. *Id*. Moreover, Drescher discloses that user identity is used to determine "permissions" to allow "access to resources at the server" ("… and contains sufficient information to authenticate a user of the web service"). *Id*. Accordingly, Aaltonen and Drescher would render this construction obvious if it was applied (it should not be). *Id*.; TTI-1028, ¶26.

### C. Aaltonen-Drescher renders obvious applying the identifiers "at the application layer level"

These identifiers are also applied at the application layer, as required by the claims. The identifying information in Aaltonen's information and data packets describes blocks of packets ("a table uniquely identifying the block of packets"). Petition, 18; TTI-1005, ¶[0103]. These data blocks are created by Aaltonen's content manager, an application, which "break[s] up the upload content into a plurality of portions" ("blocks"). Petition, 4-5, 8-9; TTI-1005, ¶[0060], FIG. 6. As Dr. Traynor explains, "functionality exposed to an application (e.g., the segmenting of data by the content manager) is distinctly application layer

functionality." TTI-1028, ¶28. Accordingly, while individual packets may be transport layer constructs, Aaltonen's "blocks" of packets are established by an application, and are thus clearly not. *Id.*; Petition, 4-5, 8-9; TTI-1005, ¶[0060], FIG. 6. As Dr. Traynor elaborates:

> "The OSI model is a conceptual framework composed of abstract layers, and applying rigid lines of demarcation to these layers is improper (e.g., declaring that all information carried by a particular data packet is information at the transport layer). The common understanding is that functionality exposed to an application (e.g., the segmenting of data by the content manager) is distinctly application layer functionality. Said another way, if you were to assume that all information in a data packet is assigned to the transport layer of the OSI model, application layer protocols (like HTTP) would not exist, as data in transit (e.g., a transmitted HTTP data block) could only theoretically be assigned to the transport layer. In actuality, the layers of the OSI model complement each other, and act to conceptually (not physically) separate networking functionality."

TTI-1028, ¶27.

As discussed above, Mr. Gajendragad's opinion to the contrary is not credible and should be given little to no weight. *Supra*, §I.B.2. For example, as evidence of the conclusory nature of his testimony, the POR argues that "a POSITA would readily appreciate the fact that FTP and HTTP had no concept of segmentation of data at the Application Layer in 2007," citing only Mr.

Gajendragad's written opinion. POR, 19. However, Mr. Gajendragad's written opinion simply repeats the same statement in the POR, nearly word for word, without offering any additional evidence. EX-2001, ¶60; *Xerox Corp.*, IPR2022-00624, Paper 9 at 15. As another example, Mr. Gajendragad opines that "[a]s of 2007, a POSITA would have understood that HTTP was only being used between web servers and requesting Browsers"—almost the same statement verbatim made in the POR. *Compare* POR, 23 *with* EX-2001, ¶67. Indeed, this is a trend throughout Mr. Gajendragad's written opinion. *See generally*, POR; EX-2001.

In addition to being conclusory, these opinions are factually incorrect. For example, as Dr. Traynor notes, "Na itself undermines the assertation that HTTP was limited to only browsers as of 2007." TTI-1006, ¶¶[0003]-[0004], [0052], [0062], [0067]-[0068], [0072]-[0075], [0111], [0116]; TTI-1028, ¶¶29-30. Na explicitly discloses the use of HTTP in Multimedia Messaging System (MMS), which a POSITA would have readily appreciated is not confined to a web browser. *Id*.; *see also* TTI-1030, 25-26, 132-134. The MMS standard as of 2005 included messaging between MMS clients and server-based Value Added Service Providers ("VASPs"). *Id*. The messaging for VASP services used the Simple Object Access Protocol ("SOAP") 1.1 format, which itself used HTTP. *Id*. The SOAP format allowed for many different types of communication, beyond that provided by a simple web browser, to include any combination of multimedia, images, text, and

audio. *Id*.

Additionally, the opinion that "a POSITA would readily appreciate the fact that FTP and HTTP had no concept of segmentation of data at the Application Layer in 2007" is similarly off-base. TTI-1028, ¶31. Segmentation of data at the application layer was well known prior to the Critical Date and, in addition to the prior art combinations presented in the Petition, MMS as of 2005 (a distinctly application-layer protocol) also included options to transmit a particular MM as a collection of separate elements ("streaming," where an MM is transmitted as "one or several MM elements"). TTI-1030, 18-19, 35-36. As discussed above, when the MM in question is part of a VASP, this transmission is performed with SOAP and HTTP. TTI-1030, 25-26, 132-134. Sophisticated File Transfer Program ("lftp") is another example of a segmented file transfer protocol that performed upload recovery at the application layer. TTI-1034.

**D. Aaltonen-Drescher renders obvious a "web service"**

Even if Cellspin's construction of "web service" was adopted, the prior art would still disclose the construed feature. Petition, 11; TTI-1003, ¶42; TTI-1005, ¶¶[0056]-[0057]; TTI-1028, ¶32; *supra*, §I.B.4. As explained in the Petition, Aaltonen discloses its mobile station can use "a conventional Web browser for communicating in accordance with… HTTP" ("Web protocol based applications that use standard Internet protocols such as HTTP"). *Id*.

## III. TAKAHASHI AND NA RENDER THE CHALLENGED CLAIMS OBVIOUS (GROUNDS 2A/2B)

### A. Cellspin's arguments fail to rebut the Petition's showing that a POSITA would have been motivated to combine Takahashi's and Na's teachings

#### 1. Cellspin improperly argues for bodily incorporation of Takahashi and Na

Cellspin argues that a POSITA would not have been motivated to combine Takahashi and Na because Na discloses the use of the Multimedia Messaging Service (MMS), as opposed to HTTP. POR, 70-80. This argument calls for improper bodily incorporation of Na into Takahashi, through integration of features from Na that the Petition never alleged. *Id.* Aside from the improper claim construction arguments addressed above, the vast majority of the POR's arguments against the Takahashi-Na ground rise and fall with this argument. *Id*.

It is well established that bodily incorporation is not the standard for an obviousness analysis. *MCM Portfolio LLC v. Hewlett-Packard Co*., 812 F.3d 1284, 1294 (Fed. Cir. 2015) ("The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference" (citation omitted)), cert. denied, 137 S. Ct. 292 (2016); *In re Mouttet*, 686 F.3d 1322, 1332–33 (Fed. Cir. 2012); *In re Etter*, 756 F.2d 852, 859 (Fed. Cir. 1985) (en banc). Instead, as the Supreme Court has noted, a POSITA "will be able to fit the teachings of multiple patents together like pieces of a puzzle." *KSR Int'l*

*Co. v. Teleflex Inc.*, 550 U.S. 398, 420-421 (2007) (also stating that "[a] person of ordinary skill is also a person of ordinary creativity, not an automaton").

The Petition never alleged that Na would have been bodily incorporated into Takahashi, only that aspects of Na's disclosure (e.g., beneficially allowing "an upload of media data stopped by an upload error to be resumed from the point where the error occurred") would have been obvious to combine with Takahashi's general disclosure. Petition, 43-45; TTI-1006, ¶¶[0008], [0010]; TTI-1003, ¶168. As noted in the Petition and by Dr. Traynor, a POSITA would have recognized the benefits of Na's teachings (e.g., "improving upload efficiency and speed"), and would have sought to realize these benefits in Takahashi's system (or a comparable system). Petition, 43-45. Cellspin fails to demonstrate why a POSITA would not have been motivated to combine the principles of Na's teachings into Takahashi; it instead assumes integration into Takahashi's existing system of verbatim disclosure by Na, including its MMS syntax. POR, 70-80. This is contrary to Petitioner's theory of combinability and it also is contrary to the standard for obviousness. *KSR*, 550 U.S. at 415-421; *MCM Portfolio LLC*, 812 F.3d at 1294; *In re Mouttet*, 686 F.3d at 1332-1333; *In re Etter*, 756 F.2d at 859. Additionally, Cellspin fails to provide any rationale, outside of its bodily incorporation theory, why the proposed combination of teachings does not provide a predictable result (e.g., resuming an upload of data after an interruption in Takahashi's system, as

described in the Petition). *Id*.

#### 2. MMS is compatible with and endorses HTTP, further undermining Cellspin's bodily incorporation arguments

As discussed above in §II.C, not only is MMS compatible with HTTP, the MMS standard itself specifies the use of HTTP when transmitting certain MMs (e.g., SOAP formatted MMs). TTI-1030, 25-26, 132-134; *supra*, §II.C. Thus, even if bodily incorporation was to be required (which is legally improper), this is hardly an insurmountable obstacle to a POSITA. TTI-1028, ¶33. As Dr. Traynor explains, "at worst, this would have required a POSITA to convert the format of Takahashi-Na's messages into a SOAP-friendly format, which itself would have been predictable, as SOAP was a well-known format specified by a standard." *Id*.; *see also* TTI-1030, 25-26, 132-134. Such routine coding ability would have been well within the capability of a POSITA. *Keynetik, Inc. v. Samsung Elecs. Co*., No. 2022-1127, 2023 WL 2003932, at *2 (Fed. Cir. Feb. 15, 2023) ("Normally, once the function to be performed by software has been identified, writing code to achieve that function is within the skill of the art").

### B. Takahashi-Na renders obvious "a user identifier", and the Petition's mappings of "user identifier" are consistent

Cellspin argues that the Petition's mapping of "user identifier" is inconsistent in the Takahashi-Na ground between elements 1[e], 1[j], and 1[k]. POR, 84-90. This is not true. TTI-1028, ¶34. For each of elements 1[e], 1[j], and

1[k], the Petition mapped consistently to Takahashi's "user ID."

Specifically, the Petition mapped the user identifier in 1[e] to Takahashi's "user ID specific to a user" (a "user identifier") included in the "file name" formatted as "user ID + YYYYMMDDHHMISS (year, month, day, hour, minute, and second)." Petition, 58; TTI-1016, ¶¶(0010), (0013), (0032), (0035), (0064), (0066), (0070), FIG. 5. Cellspin does not dispute that Takahashi's user ID satisfies the claimed "user identifier." POR, 84-90.

As Dr. Traynor explained in his first declaration with respect to elements 1[e] and 1[j], Na's "message ID assigned to the media data to be uploaded (X-Msg-id, e.g., a terminal number and upload time information in the form of MIN_MMDDHHMMSS)" is in a similar format as Takahashi's file name that includes the user ID. TTI-1003, ¶208 (cited at Petition, 59 (element 1[e])), ¶236 (cited at Petition, 73 (element 1[j])). As Dr. Traynor explains, Na's terminal number uniquely identifies a particular user of the web service, which he corroborates with multiple references. *Id*. (citing TTI-1020, 4:7-10, 4:17-19, 2:60-63, 9:10-13, 12:46-49; TTI-1021, 7:39-45; TTI-1022, 3:25-27) *compare with* POR, 86; EX-2001, ¶¶207-208 (conclusory assertion that terminal number "is not a unique user identifier of the web service"); TTI-1028, ¶35.

The Petition also further elaborated that, in the combination, Takahashi's filename (including the user ID) would have been applied to each data segment by

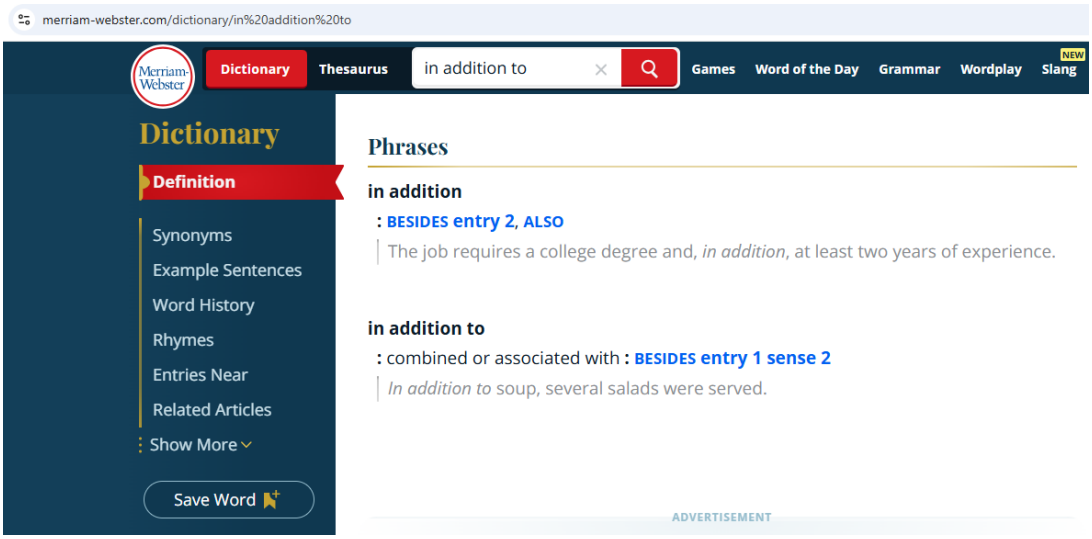
using a request message that includes the user ID for each data segment, as suggested by Na, because each request message in Na includes a "message ID" in a similar format to Takahashi's filename. Petition, 59, 73; TTI-1006, ¶¶[0053], [0062]-[0063], [0078], [0116]-[0117], FIGS. 2, 15. Thus, Takahashi's "user ID" and Na's "terminal number" are synonymous concepts and both render obvious "user identifier." TTI-1028, ¶36.

Indeed, the Petition's analysis in elements 1[j] and 1[k] maps both "the 'terminal number' or user ID" to "said user identifier." Petition, 72-73, 78 (referring to 1[e] and 1[j]). This mapping carried through each of elements 1[j] and 1[k] discusses that messages sent between the terminal and web service reference Na's message ID, which would have included Takahashi's user ID (due to its similarity to Na's terminal number) in the combination (the synchronization request in 1[j], and response in 1[k]). Petition, 71-79; TTI-1028, ¶37.

### C. Takahashi-Na renders obvious transferring a data segment "along with" the user identifier (element 1[f1], 8[f1], 15[e2], 15[f2], 15[n], 21[e2], 21[f2], 21[n])

Cellspin argues that Takahashi's filename is not transferred "along with" data segments because the filename is not sent "in addition to" the data. POR, 68-69. This argument is premised on a claim construction that is unjustifiably narrow, and contested. *Supra*, §I.B.1. Cellspin's argument also assumes that "in addition to" somehow implies a requirement that the "data segment" and "user identifier"

be separable. *Id*. Applying Cellspin's own logic and source of evidence, the plain meaning of "in addition to" does not support such a requirement. TTI-1031. Indeed, according to Merriam Webster, "in addition to" includes objects that are "combined." *Id*. In Takahashi, the filename is combined with the data as an HTTP request and is thus transferred in addition to the data. Petition, 59-61; TTI-1016, ¶¶(0049), (0005)-(0008), (0020)-(0030), (0042)-(0043); TTI-1028, ¶38.




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Second, Takahashi's filename is clearly transmitted "together with" each data segment. POR, 11; Petition, 58-59 (Takahashi discloses that in "transmitting the divided image using HTTP, the generated file name" including the user ID "is also transmitted together"); TTI-1028, ¶39; TTI-1029; *supra*, §I.B.1. Accordingly, even if Cellspin's construction is adopted (it should not be), Takahashi-Na renders it obvious. TTI-1028, ¶40.

**D. Takahashi-Na renders obvious "segment identifier"**

Cellspin does not dispute the Petition's mapping of Takahashi's "division number" to the claimed "segment identifier," even under Cellspin's unduly narrow construction. Petition, 56-57. Rather, best understood, Cellspin asserts without any citation to the Petition that "Petitioner relies of [*sic*] Na 'X-Total-Seq' and 'X-Seq-No' as 'segment identifier'." POR, 80. Cellspin argues that "Na Segment identifiers are 'Binary Encoded'" and thus Na's segment identifiers fail to meet Cellspin's construction. *Id.*; *supra* §I.B.2. As explained above in §I.B.2, "segment identifier" should be given only its plain and ordinary meaning, which would encompass an identifier that identifies a data segment as taught by each of Takahashi and Na. TTI-1028, ¶41.

Further, as explained above in §III.A.1, the Petition never proposed bodily incorporating Na directly into Takahashi. Rather, the Petition proposed that Na's teachings would have been combined within Takahashi's general disclosure, which describes transmitting data as an HTTP request pursuant to the HTTP protocol. Petition, 56-58; TTI-1016, (0053), (0055)-(0057), (0068), (0085), (0090), FIG. 3. A POSITA implementing Takahashi's HTTP-based functionality would have found it obvious to implement segment identifiers as text strings in accordance with the HTTP protocol for compatibility with Takahashi's system. TTI-1028, ¶42. Indeed, Cellspin admits that "HTTP is a text-based protocol." POR, 83.

### E. Takahashi-Na renders obvious a "web service"

Even if Cellspin's construction of "web service" was adopted, the prior art would still disclose the construed feature. Petition, 50-51; TTI-1016, ¶¶(0052), (0054), (0061)-(0062), FIG. 2. As explained in the Petition, Takahashi discloses its "image storage server" has "a WEB (World Wide Web) server" (hosting "Web protocol based applications…") and publishes images "on a web page" using HTTP requests ("…that use standard Internet protocols such as HTTP"). *Id.*; TTI-1028, ¶43.

## IV. CELLSPIN'S POR EXCEEDS THE WORD LIMIT

Cellspin has improperly attempted to circumvent the word count limit set forth in 37 CFR § 42.24(b)(2). The POR includes an attestation certifying that it contains 13,519 words, but the POR also includes a significant number of block quotations of textual material that were inserted into the POR as images and that were not included in the word count certification. The following table lists examples, with the pages and word counts, of the block quotations that were not included in the certified word count:

| Page | Words | Page | Words | Page | Words |
|---|---|---|---|---|---|
| 6 | 75 | 23 | 152 | 57 | 83 |
| 10 | 176 | 30 | 186 | 59 | 152 |
| 14 | 107 | 33 | 83 | 61 | 43 |
| 15 | 62 | 34 | 153 | 66 | 43 |

| | | | | | |
|---|---|---|---|---|---|
| 17 | 107 | 49 | 98 | 78 | 287 |
| 18 | 128 | 51 | 66 | 81 | 37 |
| 20 | 86 | 53 | 158 | 85 | 97 |
| 21 | 216 | 56 | 152 | 89 | 94 |
| 22 | 57 | | | | |

These images of block quotations include an additional 2,898 words that were not included in the word count certification, resulting in a POR that contains 16,417 and exceeds the 14,000-word limit by 2,417 words.

Although the Trial Practice Guide specifies that "a party need not go beyond the routine word count supplied by their word processing program," it also stipulates that "[e]xcessive words in figures, drawings, or images… in order to circumvent the rules on word count, may lead to a party's brief not being considered." TTI-1033, 40. Indeed, briefs have been expunged for this exact reason. *Google, Inc., v. Ji-Soo Lee*, IPR2016-00022, Paper 25 (PTAB November 23, 2016).

Respectfully submitted,

Dated: April 11, 2025

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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 Petitioner's Reply to Patent Owner's Response totals 5,493 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), 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 the Patent Owner, by serving the correspondence addresses of record as follows:

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