

UNITED STATES PATENT AND TRADEMARK OFFICE

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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HULU, LLC,

Petitioner

v.

SITO MOBILE R&D IP, LLC and SITO MOBILE, LTD.,

Patent Owner

Case No. IPR2021-00308

Patent No. 8,825,887

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**PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE TO  
PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,825,887**

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**LIST OF EXHIBITS**

<b>Exhibit No.</b>	<b>Description</b>
1001	U.S. Patent No. 8,825,887
1002	File History for U.S. Patent No. 8,825,887
1003	Declaration of Henry H. Houh In Support of Hulu's Petition
1004	Curriculum vitae of Henry H. Houh
1005	U.S. Patent No. 6,389,467 ("Eyal")
1006	Reserved
1007	Reserved
1008	Reserved
1009	U.S. Patent No. 6,715,126 ("Chang")
1010	Application No. 09,838,993 ("April 2001 Application")
1011	Provisional Application No. 60/263,044 ("Provisional Application")
1012	Application No. 10/051,406 ("2002 Application")
1013	RealNetworks Form S-1 (Sept. 26, 1997)
1014	Portions of e-Video by H. Peter Alesso
1015	Synchronized Multimedia Integration Language (SMIL) 1.0 Specification (June 15, 1998)
1016	Archive.org Affidavit of Christopher Butler and RealNetworks Production Guide for RealSystem G2, from Netflix, Inc. v. Affinity Labs of Texas, LLC, IPR2016-01701 (EX. 1026 in the Netflix IPR)

1017	Microsoft, “All about ASX Files” from archive.org (available at <a href="https://web.archive.org/web/19990508200218/http://msdn.microsoft.com/workshop/imedia/windowsmedia/crcontent/asx.asp">https://web.archive.org/web/19990508200218/http://msdn.microsoft.com/workshop/imedia/windowsmedia/crcontent/asx.asp</a> )
1018	Microsoft, “Ad Insertion,” from archive.org (available at <a href="https://web.archive.org/web/19991013170746/http://msdn.microsoft.com/workshop/imedia/windowsmedia/ad.asp">https://web.archive.org/web/19991013170746/http://msdn.microsoft.com/workshop/imedia/windowsmedia/ad.asp</a> )
1019	Reserved
1020	Cisco Systems, “The Cisco Content Delivery Network Solution for the Enterprise”
1021	Akamai Form S-1 (Amendment No. 6, Oct. 28, 1999)
1022	The Tech, “MIT Students Reap Profit From Soaring Akamai IPO” (Nov. 2, 1999)
1023	Reserved
1024	Reserved
1025	Kien A. Hua et al., “2PSM: an efficient framework for searching video information in a limited-bandwidth environment,” <i>Multimedia Systems</i> 7: 396–408 (1999)
1026	Portions of Computer Networking by J. F. Kurose and K. W. Ross
1027	Order Governing Proceedings from SITO Mobile R&D IP, LLC v. Hulu, LLC, 6:20-CV-472-ADA (W.D. Tex., August 21, 2020)
1028	Declaration of Cameron W. Westin In Support of Hulu’s Petition
1029	Portions of an email chain between Stephanie R. Mandir and Amy K. Liang
1030	SITO Mobile R&D IP, LLC. and SITO Mobile, Ltd.’s Disclosure of Preliminary Infringement Contentions from SITO Mobile R&D IP v. Hulu, LLC, 6:20-CV-472-ADA, served on Sept. 11, 2020

1031	RFC 1945 - Hyper-Text Transfer Protocol v1.0 (1996)
1032	RFC 959 - File Transfer Protocol (FTP)(October 1985)
1033	U.S. Patent No. 5,774,670 (“Montulli”)
1034	RFC 1866 - Hypertext Markup Language - 2.0 (1995)
1035	RFC 1738 - Uniform Resource Locators (URL) (1994)
1036	Katherine Gallagher and Jeffrey Parsons, “A Framework for Targeting Banner Advertising On the Internet” (1997)
1037	PR Newswire Association, “The New York Times on the Web Creates New On-line Marketing Standard; Demographic Data From 1.7 Million Registrants Enables Precise Advertiser Targeting” (July 14, 1997)
1038	Herhold, S., “Web Effort Aims at Tailoring Pitches to the Right People,” The Philadelphia Inquirer (February 27, 1997)
1039	Reserved
1040	Reserved
1041	Reserved
1042	Reserved
1043	RFC 1580 - Guide to Network Resource Tools (March 1994)
1044	U.S. Patent No. 5,931,901 (“Wolfe”)
1045	U.S. Patent No. 6,385,592 (“Angles”)
1046	Reserved
1047	Reserved
1048	Email from C. Westin to Counsel for SITO dated December 10, 2020.

1049	Reserved
1050	Reserved
1051	U.S. Patent Pub. No. 2004/0083273A1 (“Madison”)
1052	Specification of U.S. Patent Provisional Application No. 60/263,058 (“Madison Provisional”)
1053	Reserved
1054	Philip Greenspun’s “Database Backed Web Sites: The Thinking Person’s Guide to Web Publishing”
1055	Database Management Systems, Third Edition
1056	Reserved
1057	Reserved
1058	Affidavit of Duncan Hall and Exhibit A (11-11-2020)
1059-1077	Reserved
1078	Fourteenth Supplemental Order Regarding Court Operations Under The Exigent Circumstances Created By The COVID-19 Pandemic
1079	Declaration of Bradley M. Berg In Support of Petitioner’s Motion for Pro Hac Vice Admission Pursuant to 37 C.F.R. §42.10(C)
1080	Declaration of Brett J. Williamson In Support of Petitioner’s Motion for Pro Hac Vice Admission Pursuant to 37 C.F.R. §42.10(C)
1081	Deposition Transcript of Michael Adams (Vol. 1), taken on October 15, 2021
1082	Email from Ron Daignault to Cameron Westin dated 10/20/2021.
1083	Deposition Transcript of Michael Adams (Vol. 1), taken on October 20, 2021

1084	Deposition Transcript of Michael Adams (Vol. 1), taken on October 22, 2021
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## **I. INTRODUCTION**

SITO's Patent Owner Response ("POR") fails to distinguish any of the challenged claims from the prior art grounds. Moreover, SITO's attempt to claim an earlier priority date to overcome one of those grounds fails (and SITO does not even challenge the priority of the references in the other grounds). Accordingly, Hulu requests that the Board cancel the challenged claims of U.S. Patent No. 8,825,887.

## **II. SITO MISCHARACTERIZES THE '887 PATENT AND THE SCOPE OF THE CLAIMS**

The '887 Patent does not propose, nor claim, the "solutions" described in SITO's POR. In fact, the patent teaches the opposite. SITO contends that the problems in the prior art at the time included lack of reliable delivery, poor picture quality, and poor quality of service, and that "delivering requested media (e.g., a program) portion-by-portion" and "enabling the user device (not the server/backend streaming system) to control the process of streaming the portions" was the patent's "solution" to those problems. POR, 9-13. But it does not teach, nor are its claims directed to, breaking up and delivering a media asset in "portions," and it is the routing processor in the streaming system, *not* the user device, that controls the process. SITO's expert could not identify anywhere in the specification where the patent links these supposed solutions to the problems it describes—instead his opinions as to the benefits provided by these solutions were

driven by hindsight analysis. Ex-1083, 70:3-71:10, 75:2-22. SITO's mischaracterization permeates its POR.

**A. Media Is Sent as Entire Media Items, Not in “Portions”**

The '887 Patent does not solve any problem by delivering requested media in portions, at least as SITO describes that term. SITO mischaracterizes both the “program” and the “portion” thereof that are described in the specification.

“The initial signaling from the viewer 118 or 120 typically is a request for a program.” Ex-1001, 9:63-65. SITO's expert confirmed that he understands that “the program is the requested media.” Ex-1081, 134:8-12; 146:7-14.<sup>1</sup> In its reply, SITO attempts to limit the requested media to a single media asset, such as an “entire movie” and concludes that the “portions” are segments of those movies. *Id.* But SITO's expert agreed that the requested program is not limited to a single media asset. Ex-1081, 165:4-8 (agreeing that the patent is “inclusive in its use of ‘program’ . . . [such that] it could be a movie trailer and a movie.”). The specification includes many embodiments where a “program” contains several

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<sup>1</sup> SITO agreed that it would not object to Hulu introducing Mr. Adams's deposition transcripts from related proceedings. Ex-1082. In Ex-1081, Mr. Adams was testifying about patents from the same family with nearly identical specifications.

stand-alone pieces of media, such as an entire movie, TV episode, trailer, or advertisement:

- “In another example, a movie trailer followed by a full-length movie may combine two different media to make a simple program.” Ex-1001, 4:18-20.
- “[A] program may combine several pay-per-view events.” *Id.*, 42:1-2.
- A program may consist of “one or more different media clips.” *Id.*, 9:9-16; 5:39-43. Media clips, in turn, are described as full-length media. *Id.*, 18:30-32 (“The program has multiple media items, including a media clip for a movie and an advertisement.”); 19:10-11 (“In this example, the presentation includes a movie media clip and an advertisement.”).
- Content owners may “create viewing programs that can be targeted at viewers based on the amount of information known about an individual viewer...[by] creat[ing] a program having one or more media items.” *Id.*, 4:7-11.

The patent confirms that a program is comprised of stand-alone pieces of media in other ways. For example, “if a network owner receives consumer complaints regarding a particular media, the network owner may block access to the media using the media ID 2208, even though the media may be listed in

numerous programs and presentations.” *Id.*, 49:1-5. In another example, the different media contained in a program may be owned by different owners. *Id.*, 5:54-61. Again, the idea that a single portion can be blocked across numerous programs, or that different media owners own different portions of a program, is inconsistent with SITO’s description of “portions” as tiny pieces of a movie.

Similarly, SITO’s expert admitted that the “portions” of media could be media clips other than sequential chunks of a media asset. For example, when asked about what the specification meant by indicating that media clips could be streamed in parallel sequencing, Mr. Adams explained that one media clip could be the video and audio and another could be subtitle information that is presented in parallel. Ex-1081, 133:6-25. Moreover, Mr. Adams confirmed that nothing about the words “media clip” is inherently inconsistent with a full media asset, such as a song. Ex-1083, 39:8-22.

The patent’s claims are not directed to splitting media files into portions. Notably, all but two claims require only one “portion.” Claims 90 and 117, the sole exceptions, require two. Moreover, the word “portions,” in its plural form, never appears in the patent. Even if SITO is correct that the claims are sufficiently broad to cover media broken into portions, read in light of the specification, they certainly also encompass a request for a program consisting of multiple stand-alone media, each one of which would be a “portion” of the requested program.

**B. The Name Routing Processor, Not the User Device, Controls Media Streaming**

SITO's assertion that the '887 Patent uses the "user device (not the server/backend streaming system) to control the process of streaming" (POR, 10) is not supported by the patent, which teaches that the Name Routing Processor ("NRP"), not the user device, controls the streaming process. Ex-1001, 13:27-43, 14:16-23, 17:10-18:19, 24:52-26:17. During his deposition, SITO's expert narrowed "control" to the user device requesting each segment itself. Ex-1081, 140:14-22. And he admitted that various prior art references disclosed similar functionality. *Id.*, 37:10-38:2, 42:18-43:21, 79:11-17, 107:16-22.

**III. THE BOARD'S PRELIMINARY CONSTRUCTION SHOULD BE ADOPTED**

SITO proposes no alternative construction for "settlement record" beyond the one preliminarily adopted by the Board because SITO believes that Hulu's invalidity positions do not "turn on this construction." POR, 16; Institution Decision ("DI"), 18-19. Since SITO does not contest the Board's preliminary construction, it should be adopted.

**IV. THE '887 PATENT IS NOT ENTITLED TO A PRIORITY DATE EARLIER THAN JANUARY 18, 2002**

The petition identified two potential priority chains that could possibly support a January 19, 2001 priority date. Pet., 6-8. In its POR, SITO does not

address “priority chain B” dealing with the ’044 Provisional Application.<sup>2</sup> The petition identified a fundamental problem with the ’887 Patent’s priority chain—critical disclosures related to the claimed “instructions” did not appear January 2002, the filing date of Application No. 10/051,406 (“’406 Application”). Pet., 6. SITO’s POR ignores that problem entirely. Instead, SITO attempts to swear behind the prior art using Ex-2016 (1/13/01 document). POR, 28. However, SITO does not make its swear-behind argument with specificity, but rather improperly seeks to make the antedating case in non-word-count-limited declarations and claim charts (*e.g.*, Exs. 2013-2015, 2017), which cannot be incorporated by reference in the POR. *See, e.g.*, 37 C.F.R. 42.6; *General Access Solutions, Ltd. v. Sprint Spectrum L.P.*, 811 Fed. Appx. 654, 656-57 (Fed. Cir. 2020) (affirming a Board decision declining to consider arguments on prior conception when those arguments were not substantively presented in the patent owner’s briefing and, instead, merely directed the Board to arguments and evidence presented in an

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<sup>2</sup> SITO includes a section dealing with the ’044 Provisional but analyzes the geographic location of the system components, which relates to other patents challenged by Hulu, not the ’887 Patent. SITO does not allege that ’044 Provisional satisfies the written description requirement for any claim of the ’887 Patent.

inventor declaration and attached claim charts); *Google LLC v. Parus Holdings, Inc.*, IPR2020-00846, Paper 31 at 14-17 (P.T.A.B. October 19, 2021) (rejecting Patent Owner’s attempt to incorporate antedating evidence consisting of claim charts and declarations to support its allegations of prior conception).

In any case, SITO’s swear-behind argument is a distraction because, as discussed in Hulu’s petition, no pre-2002 application in the priority chain included sufficient written description for the claimed “instructions.” Pet., 6-8. Thus, SITO’s attempts to claim an earlier priority date are both factually and legally unsupported.<sup>3</sup>

SITO’s only argument for why the 01/13/2001 application includes the claimed “instructions” is that it describes a “presentation identification” communicated as part of the play script. POR, 31-33. But SITO fails to explain why an identifier that identifies the requested media should be mapped to the claimed “instructions,” rather than to another claim requirement such as “identifying at least a portion of the requested media” where it fits much more naturally. Indeed, the ’887 Patent explains that the presentation ID identifies a particular presentation and says nothing about it being used as an “instruction.” Ex-1001, 19:5-7, cl. 39. There is simply no written description in the priority

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<sup>3</sup> SITO does not challenge the priority of the references in Grounds 1-2.

application for the claimed “one or more instructions as to how the at least one portion of requested media is to be streamed to the communication device.” For the reasons identified in the petition, the challenged claims are not entitled to a priority date any earlier than January 18, 2002. Pet., 6-8.

## **V. GROUND 1 INVALIDATES THE CHALLENGED CLAIMS**

### **A. A POSITA Would Have Been Motivated to Combine Eyal and Angles**

SITO argues that because there are differences between Eyal and Angles a POSITA would not have been motivated to combine them. POR, 61-65. But SITO fails to explain why the differences it identifies are relevant to the combination identified by Hulu: using “Angles’s targeted advertisements, user profiles, advertisement/revenue tracking, and revenue sharing with Eyal’s streaming media system.” Pet., 15.

Instead, SITO argues that Eyal discusses inserting advertisements into media streams whereas Angles discusses advertisements on the face of a webpage (POR, 61-62), that content in the Eyal system is freely available from third-party websites whereas Angles’s content is only available to registered users (*id.*, 62-63), and that Angles uses a different method for routing media requests than Eyal, including what behavior is tracked, and use of third-party websites and play-lists (*id.*, 62-63). Even if SITO were correct (which it has not shown beyond bare conclusions), none of these differences are pertinent to using “Angles’s targeted advertisements, user



profiles, advertisement/revenue tracking, and revenue sharing with Eyal's streaming media system." Pet., 15-17. *In re Keller*, 642 F.2d 413, 425 (CCPA 1981) ("The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference....Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.").

SITO also contends that "Eyal does not disclose, teach or suggest advertisements inserted between streams are revenue generating advertisements that can be shared." POR, 62. If SITO means that Eyal does not teach that advertisements generate revenue, that argument fails on its face—generating advertisement revenue is the primary reason to include advertisements in any type of media presentation, as SITO's expert admitted. Ex-1083 at 40:10-18 (Q: [W]hat is the point of having commercials in streaming media...A: Let me give you one example, which is to generate revenue for the service."). If SITO means that Eyal does not teach sharing the revenue generated by advertisements, that merely identifies the need for a combination, suggesting (rather than refuting) that a POSITA would have been motivated to make the combination. As explained in detail in Hulu's petition and in Dr. Houh's declaration, a POSITA would have been motivated to make the combination. Pet., 15-17, 23-25, 30-31; Ex-1003, ¶¶147-152, 177-184; 217-221. Indeed, SITO does not even dispute the benefits of

Angles’s targeted advertisements, user profiles, advertisement/revenue tracking, and revenue sharing that would motivate a POSITA—increased effectiveness of advertisements and, most significantly, increased efficiency for determining what payments and credits are needed for revenue derived from the delivery of those advertisements.. *Compare* POR, 61-65 *with* Pet., 15-17; 23-25.

**B. Eyal Combined With Angles Renders Obvious All Elements of the Challenged Independent Claims**

SITO limits its arguments to seven discrete elements. As set forth in Hulu’s Petition, Eyal combined with Angles renders obvious each of these limitations.

**1. Instructions**

First, SITO argues that the “mere order of URLs in Eyal’s play-list” cannot be the claimed instructions. POR, 34. The ’887 Patent explicitly refers to ordering as a type of instruction. Ex-1001, 8:29-32; Cls. 84 and 111. Moreover, Eyal’s teaching is not limited to ordering instructions—it also teaches instructions in the form of metadata, as discussed below and in Hulu’s petition. *See* Pet., 22.

Second, SITO argues that the metadata in Eyal only relates to “how the user’s device displays/presents the media,” and therefore does not relate to how to obtain the requested media. POR, 35. As discussed above, Eyal discloses ordering instructions, which the ’887 Patent explicitly refers to as a type of instruction. Ex-1001, 8:29-32; Cls. 84 and 111. Moreover, the metadata “instructions” in Eyal’s playlist include instructions related to duration, media URL, source web site,

media type, clip broadcast quality, and image size for videos, which directly map to the type of instructions recited in dependent claims 84 and 111: “instructions relating to at least one of a media format, a media language, a media sequence, and an advertisement insertion.” Pet., 22-23 (citing Ex-1005, 12:43-63); Ex-1001, Cls. 84 and 111.

SITO also implies that a URL cannot include an instruction. POR, 35. This is incorrect. The claims do not require the instructions to be separate from the URLs for obtaining media. SITO’s expert acknowledged that formatting the instructions “as a part of the URL string doesn’t actually...change[] anything...you’re still transmitting the instructions.” Ex-1081, 180:22-181:2. He continued by noting: “It’s a formatting difference, quite frankly. So I think actually both satisfy the claims in my opinion.” *Id.*, 181:2-5. Regardless, Eyal/Angles do not only teach URL instructions—they also teach instructions in the form of metadata and ordering, as discussed above and in Hulu’s petition. *See* Pet., 22-23.

## **2. Capabilities**

SITO’s assertion that protocol information is not “[a] capability[y] of the communication device” misses the point. POR, 36-37. Contents of Eyal’s playlist (*i.e.*, the communication containing the claimed list, resource identification, and instructions), including the protocol information, are included to conform to

capabilities of the communication device to which it will be sent. Pet, 20. In Eyal, the play-list is generated based on a capability of a user device because the URLs within the play-list are modified based on the type of player employed by the user. Ex-1005, 21:35-46 and 13:52-54. SITO's expert acknowledged that Eyal looks "behind those links and determine its playability" including determining if the asset was compatible with the user device (e.g., Apple QuickTime asset for an Apple user device). Ex-1081, 77:8-24. He concluded that since "Eyal is trying to make sure that the user experience is good...that means passing a playlist with assets that will actually be played to the appropriate media player." *Id.*, 77:25-78:3. SITO's argument ignores the fact that the URLs in Eyal are placed in the play-list, such that modifying the URLs to match the user device capabilities (e.g., HTTP vs. PNM) is also modifying the claimed list, resource identification, and instructions. POR, 38-39.

To the extent that SITO argues that *all three* pieces of the communication (*i.e.*, the (i) list, (ii) resource identification, and (iii) instructions) are each generated based on capabilities of the communication device, SITO cannot identify any supporting evidence in the patent and even contradicts its own priority claim. POR, 36. There, SITO repeatedly argues that the "presentation identification" is an "instruction." *See, e.g.*, POR, 31-33. But the patent never mentions generating the "presentation identification" based on the capabilities of the communication

device (or, for that matter, a user characteristic), and SITO does not attempt to show that it does.

### **3. Capabilities and Characteristics**

In addition to being customized based on the capabilities of the end-user device, Eyal's play-list (*i.e.*, the communication containing the claimed list, resource identification, and instructions) is customized based on characteristics of the end user. Eyal states that its play-lists are "personalized for the user of the end terminal" and "generated for preferences and profiles specified by the user," including by inserting other media like "streaming media commercials." Ex-1005, 33:9-15, 31:29-31, 13:1-8, and Fig. 17. SITO's expert admitted that Eyal's "playlists may be personalized for the user of the end terminal" and that what media items were returned to a user would potentially change based on the user's profile or preferences, "even if they made exactly the same search request." Ex-1083, 34:18-35:8. Eyal's play-lists, in turn, comprise the claimed list, resource identification, and instructions. *See* Pet., 21-23.<sup>4</sup>

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<sup>4</sup> To the extent that SITO argues that the (i) list, (ii) resource identification, and (iii) instructions are each individually generated based on capabilities of the communication device and characteristics of the end user, it is wrong for the reasons in Section V.B.2.

#### 4. Portions

The Eyal/Angles system teaches “one portion of the requested media,” as used in the ’887 Patent. SITO’s argument to the contrary rests on its mistaken position that the patent is about “streaming requested media in portions.” POR, 39-41. The claims do not require breaking entire media into portions. *See* Section II.A.

SITO’s descriptions of the Eyal/Angles system as only “dealing with full pieces of media” incorrectly limits the teachings of that combined system. The Eyal/Angles system discloses delivering portions of media in the same manner as the ’887 Patent, such as advertisement insertion (*compare* Ex-1005, 13:1-8 *with* Ex-1001, 10:8-13) and responding to user requests for categories of media (like “Jazz programming”) with individual songs within that category. Ex-1005, 16:6-17; 30:35-37 (“the user’s media experience resembles listening to an album”). SITO’s expert agreed that “by making a request for the top jazz hits playlist...that the user is making a request for media.” Ex-1081, 82:17-24. Further, when asked if each song in a playlist would constitute a “portion of that playlist,” he testified: “In this context, the playlist has a number of songs on it. And so the totality of the playlist is all of the songs one after another. ***And each song is part of that playlist.***” *Id.*, 82:25-83:8 (emphasis added). Thus, Eyal’s descriptions of individual songs in a play-list, with “streaming media commercials,” “news items,”

or “weather reports” “inserted into the play-lists in various locations between” those songs (for example) plainly meets the claimed “portion.” Ex-1005, 13:1-8.

## **5. Revenue Sharing Rule**

SITO’s argument that Eyal/Angles does not teach a “revenue sharing rule” is only an argument against combining Eyal and Angles. POR, 41-42. As discussed above, a POSITA would have been motivated to combine Eyal and Angles. *See* Section V.A above. SITO expands on its irrelevant distinction between Eyal and Angles based on Eyal’s disclosure of inserting “advertisements *between streaming media clips*,” and Angles’s disclosure of “inserting advertisements into *the face of a webpage* e.g., a banner advertisement on a webpage.” POR, 42. That supposed difference is of no moment for Hulu’s proposed combination—whether the advertisements that generate revenue are banner ads, or inserted ads, revenue sharing would be the same, and SITO provides no rationale for why a POSITA would treat them differently. This is particularly true where, as SITO’s expert admitted, both Eyal and Angles customize advertisements for a particular user. Ex-1083, 34:18-35:8, 45:4-14. Moreover, the ’887 Patent itself explains that “advertisements” can be “media clips, banner advertisements, or other types of advertisements.” Ex-1001, 10:10-12. There is simply no meaningful distinction between the advertisements in Eyal, Angles, and the ’887 Patent.

## 6. Sharing Revenue

SITO argues that “a POSITA would not take the concept of revenue sharing associated with advertisements on the face a webpage and apply that to advertisements inserted in streaming media.” POR, 43. That is not true for the reasons discussed directly above. Moreover, SITO’s expert confirmed that a POSITA would understand that a primary purpose of commercials in streaming media was to generate revenue and that Eyal disclosed dividing revenue among various parties. Ex-1083, 40:10-41:20, 46:20-47:14, 48:12-49:5.

## 7. Requested Media Associated with Revenue Sharing Rule<sup>5</sup>

SITO does not dispute that Angles teaches targeted advertising. POR, 43-44. When a user requests media in the combined Eyal/Angles system, the process of responding with the media *and* a targeted advertisement, by definition, “associates” the requested media with that advertisement. *See* Pet., 26. By associating the requested media with a targeted advertisement, Eyal/Angles also associated the requested media with Angles’s revenue sharing rule—discussed above—for that targeted advertisement. *See* Ex-1045, 20:39-49 (advertising module uses information to “distribute the revenue” from advertisements “as a bonus to the content providers and consumers”; 16:30-33 (“advertisement

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<sup>5</sup> This argument does not apply to Claim 39.



provider... pay[s] the content provider based on the volume of advertisements actually displayed by the content provider”). The claims require nothing more.

## **8. Rule**

SITO admits that Eyal and Angles teach generating a play-list based on “a rule for selecting media for inclusion in the play-list,” but that the ground does not meet Claim 45’s “rule” limitation because rules “for selecting media” are not rules for generating the (i) list, (ii) resource identification, and (iii) instructions. *See* POR, 44. SITO’s argument relies on an unduly narrow reading of what it means to generate a communication. *See* Pet., 27-28. Because Eyal’s playlist is generated based on a rule means the information included in the playlist, e.g., (i), (ii), and (iii), is chosen based on that rule.. *See* Pet., 27-28.

### **C. Eyal Combined with Angles Renders Obvious the Challenged Dependent Claims**

SITO’s remaining arguments for specific dependent claims are likewise unavailing. For Claim 52, SITO merely repeats its argument against combining Eyal and Angles. POR, 44. For Claim 101, SITO argues that the URL and URL metadata in Eyal cannot be a “unique identifier” if the URL is also an “identification” of a network resource and the metadata are also an “identification” of requested media. POR, 45. SITO provides no support for its assumption that a URL containing metadata, like the URL in Eyal, cannot be a “unique identifier” while also being an “identification” of other things. *Cf.* Ex-1081, 181:2-5 (“It’s a

formatting difference, quite frankly. So I think actually both satisfy the claims in my opinion.”). For Claim 111, SITO makes essentially the same argument it made for Claim 101, followed by repeating its argument about instructions more generally. *See* Section V.B.1 above. And for Claim 117, SITO just repeats its “portions” argument.

## **VI. GROUND 2 INVALIDATES CLAIM 105**

### **A. A POSITA Would Have Been Motivated to Combine Eyal, Angles, and Chang**

SITO discussion of the Chang combination is cursory at best. None of its arguments are relevant to Hulu’s proposed combination: incorporating Chang’s teaching of including metadata specifying frame rate, bit rate, and sequence in the communication sent to the viewer. *Compare* POR, 65 *with* Pet., 42.

### **B. Eyal, Angles, and Chang Renders Obvious Claim 105**

SITO admits that “frame rate, bit rate and sequence are *included* in [Chang’s] HotAudio file.” POR, 47. But SITO argues that the combined Eyal/Angles/Chang system “fails to teach generating a communication sent to the ‘communication device’ (end user) that is based on rules specifying bit rate, frame rate or sequence.” *Id.*<sup>6</sup> SITO again ignores that it is the ***combination*** of references

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<sup>6</sup> SITO does not challenge Hulu’s conclusion that Eyal/Angles, without Chang, teaches Claim 105’s limitations based on Eyal’s teachings about rules specifying

that teaches this limitation: Eyal teaches that URLs in the play-list are generated according to rules specifying the format associated with the requested media, and, with that context in mind, Chang’s disclosures of frame rate, bit rate, and sequence teach the remaining rules. *See* Pet., 44-45.

## **VII. GROUND 3 INVALIDATES THE CHALLENGED CLAIMS**

### **A. A POSITA Would Have Been Motivated to Combine Madison and Wolfe**

Hulu’s proposed combination does not, as SITO suggests, throw Madison and Wolfe together wholesale. The combination is far more specific—Hulu proposes applying “Wolfe’s bundling targeted advertisements based on subscriber information” (Pet., 52) and “Wolfe’s tracking information for billing and sharing revenue between entities” (*id.*) to Madison. Madison explains that “ad tag[s] (which specif[y] where an advertisement is to be inserted)” are utilized in the ASX redirector file. Ex-1051, [0032], [0037]. SITO’s expert admitted that ad insertion was well-known to a POSITA at the time. Ex-1083, 121:23-122:1. To the extent that Madison does not explicitly teach how the advertisements are selected for insertion, a POSITA would look to another source for that detail. *See* Pet., 57-58. And to the extent that Madison does not explicitly teach what to do with

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the format associated with requested media. *See* Pet., 44; POR, 46-48.

Accordingly, SITO’s arguments regarding Chang are irrelevant.

advertising revenue, a POSITA would also look for another source for that. *See* Pet., 60. Wolfe provides clear teachings for both topics, and a POSITA would have been motivated to combine the two references. Instead of responding to these specific motivations recited in Hulu’s petition, SITO discusses differences between the two references in the abstract. But none of those differences are relevant the combination that Hulu’s actually proposes, and none would they impact the ability to combine Wolfe’s teachings with Madison.<sup>7</sup> *In re Keller*, 642 F.2d 413, 425 (CCPA 1981).

**B. Madison Combined With Wolfe Renders Obvious All Elements of the Challenged Independent Claims**

SITO limits its arguments to six discrete elements. As set forth in Hulu’s Petition, Madison combined with Wolfe renders obvious each of these limitations.

**1. Portions**

As discussed above, SITO misunderstands the ’887 Patent’s “portion[s].” *See* Section II.A above. As the term “portion” is *actually* understood in the ’887 Patent, the Madison/Wolfe system clearly meets the limitation. *See* Pet., 54-61

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<sup>7</sup> In many cases these are not differences at all. For example, SITO attempts to distinguish the two based on a different type of content provider or different user authentication. POR, 65-66. But SITO’s expert’s description of Madison and Wolfe minimizes these alleged differences. Ex-1083, 117:1-12, 124:8-13.

(discussing Madison’s URLs in the context of the combined Madison/Wolfe system). Moreover, SITO’s expert admitted that a POSITA would understand how to use ASX files to transmit portions of a complete media file (e.g. half of a tv episode, followed by an advertisement, followed by the second half of a tv episode). Ex-1081, 110:7-11:9.

## 2. Identifying Availability<sup>8</sup>

SITO admits that Madison teaches removing or deleting entries from the Streams2 table when they are no longer available for streaming (*i.e.*, because they have expired or because the content owner asks to remove them). *See* POR, 51. SITO’s argument, then, is that this “identifying . . . whether the requested media is available for streaming . . .” does not happen “in response to” a request from the user device. POR, 51-52 (emphasis omitted). Notably, the “in response to” language that SITO’s entire argument hangs on ***does not appear in the relevant claims*** (Claims 39, 45, and 68). Thus, the only supposedly missing limitation is not actually a limitation of SITO’s asserted claims.

## 3. Characteristics

SITO contends that Madison’s generation of an ASX redirector file with a targeted advertisement inserted into it as taught by Madison and Wolfe does not

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<sup>8</sup> This argument does not apply to Claim 98.

meet the requirement that the communication containing a list, identification of a resource, and instructions be generated based the “capabilities of the communication device.” POR, 52-53. SITO’s assertion that this “targeted advertising” is not “a user ‘characteristic’” (*id.*) misses the point. Contents of Madison’s redirector (*i.e.*, the communication containing the claimed list, resource identification, and instructions), as modified based on combination with Wolfe, is based on user characteristics. Pet, 57-58. Madison teaches that its redirector file could contain references to advertisements. Pet, 57; Ex-1003, ¶¶306. And Wolfe dynamically selecting advertisements based on characteristics associated with a user. Pet., 57-58.<sup>9</sup> Thus, Madison/Wolfe teach generating the redirector file, which itself contains the claimed list, resource identification, and instructions (*see* Pet. 58-59), based on a user characteristic.

#### **4. Instructions**

SITO argues first that the only information in Madison’s redirector file is information about how media is displayed or presented to the user, and not

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<sup>9</sup> To the extent that SITO argues that the (i) list, (ii) resource identification, and (iii) instructions are each individually generated based on capabilities of the communication device and characteristics of the end user, it is wrong for the reasons in Section V.B.2.

information used to obtain requested media or information about how to stream media. POR, 54. That argument ignores Hulu’s petition, which discusses, for example, instructions to play files in a particular order or dynamically inserting other files such as advertisements. *See* Pet., 58-59. The ’887 Patent’s specification explicitly refers to ordering instructions as a type of instruction. Ex-1001, 8:29-32. And its claims confirm that advertisement insertion and ordering are the type of instructions claimed. *See* Ex-1001, Cls. 84 and 111 (“instructions relating to at least one of a media format, a media language, a media sequence, and an advertisement insertion”).

Next, SITO argues that URLs cannot be the claimed “instructions” because the claims require “instructions” separate from the “identification of the at least one resource,” which is also a URL in Madison/Wolfe. POR, 55. The claims do not require the instructions to be separate from the URLs that identify media. *See* Ex-1001, Cls. 39, 45, 68 and 98. Even SITO’s expert acknowledged that formatting the instructions “as a part of the URL string doesn’t actually...change[] anything...you’re still transmitting the instructions.” Ex-1081, 180:22-181:2. He continued by noting: “It’s a formatting difference, quite frankly.” *Id.*, 181:2-5.

SITO also argues that Hulu supposedly relied on an undisclosed three-way combination to meet the “instructions” limitation. *See* POR, 54 (“ASXF is not part of any ground asserted by Hulu” and it “should be disregarded for that reason

alone.”). As Hulu’s petition explains, and SITO does not dispute, Madison uses ASX files. There is nothing improper about discussing a POSITA’s understanding of the the capabilities and functionality of ASX files through reference to a contemporaneous document, and SITO cites no authority for its incorrect legal position. *See Koninklijke Philips N.V. v. Google LLC*, 948 F.3d 1330, 1338 (Fed. Cir. 2020) (finding that the Board properly relied on expert evidence corroborated by a contemporaneous document demonstrating the knowledge of a POSITA); *see also* Ex-1081, 97:17-98:4 (SITO’s expert explaining that a POSITA would “naturally” look at Microsoft’s documentation, including AAAF, while using ASX files).

## **5. Revenue Sharing Rule**

Notably, none of SITO’s arguments are actually based on the “revenue sharing rule” component of the claims—they are actually related to the claimed “settlement record.” Indeed, SITO’s expert admitted for Wolfe to have its costs underwritten by advertisement revenue, it must share that revenue among various entities. Ex-1083, 50:20-52:1. SITO argues that Wolfe lacks a “programmed ‘revenue sharing rule’ that is used by the system to calculate royalties,” because a “person taking various pieces of collected information and performing a calculation by hand,” and that Wolfe “is not performing billing tasks or using rules.” POR, 56-57. Thus, according to SITO, the claim “requir[es] the system to



generate a bill.” But SITO fails to apply the Board’s preliminary construction of “settlement record” is “billable event record to be used for revenue settlement purposes.” DI, 19, POR, 16, 56-57. SITO provides no justification for its own apparent interpretation. Moreover, SITO admits that the information tracked by Wolfe is “useful” to calculate royalties and that it is “being collected for preparing a bill.” POR, 56-57. SITO’s expert admitted that this information “tracks billable events” Ex-1084, 96:20-97:2.

Even under SITO’s incorrect interpretation, Madison combined with Wolfe renders the claim obvious because the CPU in Wolfe determines “whether it is necessary to take care of billing matters,” and then “tallies accounts.” Pet., 60 (citing Ex-1044 at 5:26-44).

#### **6. Requested Media Associated with Revenue Sharing Rule<sup>10</sup>**

SITO claims that Wolfe “says nothing about whether a specific requested media is associated with a revenue sharing rule.” POR, 57. But in Wolfe, the requested media is associated with the sharing rule because “royalty fees payable to the owners of the music” are associated with the music. Ex-1044, 5:26-44. *See also* Ex-1003, ¶¶331-333.

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<sup>10</sup> This argument does not apply to Claim 39.

## **7. Rule**

SITO argues that Madison and Wolfe teach generating a redirector file based on “a rule for selecting media for inclusion in the redirector file,” but contends that does not meet Claim 45’s “rule” because rules “for selecting media” are not rules for generating the (i) list, (ii) resource identification, and (iii) instructions. *See* POR, 57-58. SITO’s argument relies on an unduly narrow reading of what it means to generate a communication. *See* Pet., 61-63. Because Madison’s redirector file is generated based on a rule means the information included in the redirector file, e.g., (i), (ii), and (iii), is chosen based on that rule.

### **C. Madison Combined with Wolfe Renders Obvious the Challenged Dependent Claims**

SITO’s remaining arguments for specific dependent claims are likewise unavailing. For Claim 52, SITO misreads its own claim elements, which are clearly met by Madison/Wolfe. *See* Pet., 64. SITO’s arguments for Claims 99 and 100 are wrong for the reasons discussed in Section VII.B.3 regarding “characteristics.” *See also* Pet., 67-69. For Claim 101, SITO repeats its argument from the same claim from the Eyal/Angles ground. *See* Section V.C. For Claim 111, SITO makes essentially the same argument it made for Claim 101, followed by repeating its argument about instructions more generally. *See* Section VII.B.4. And for Claim 117, SITO just repeats its “portions” argument.

## **VIII. CONCLUSION**

Hulu respectfully requests that the Board enter a Final Written Decision invalidating the Challenged Claims.

Respectfully Submitted,

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**Certification of Word Count**

Pursuant to 37 C.F.R. § 42.24(d), Petitioner certifies that this petition includes 5597 words, as measured by Microsoft Word, exclusive of the table of contents, mandatory notices under § 42.8, certificates of service, and word count, and exhibits.

**CERTIFICATE OF SERVICE**

The undersigned certifies pursuant to 37 C.F.R. §42.6(e) and §42.105 that on November 3, 2021, a true and correct copy of this **PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE TO PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,825,887**, together with all exhibits filed therewith was served in its entirety by filing these documents through the PTAB E2E System, as well as by email, on the counsel of record for the Patent Owner.

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