

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PELOTON INTERACTIVE, INC.,
Petitioner,

v.

NEC CORPORATION,
Patent Owner.

Case No. IPR2023-01240
Patent No. 9,769,427

PATENT OWNER PRELIMINARY RESPONSE

LIST OF EXHIBITS	
Exhibit	Document
2001	Expert Declaration of Dr. Jeremy Cooperstock
2002	CV of Dr. Jeremy Cooperstock
2003	Joint Claim Construction Chart
2004	Excerpts of Prosecution History of U.S. Patent No. 9,769,427
2005	U.S. Patent Publication No. 2008/0256216 (“Aarts”)
2006	Complaint for Patent Infringement (Case No. 1:22-cv-00987)

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I. INTRODUCTION

On July 27, 2023 Petitioner submitted its Petition for *Inter Partes* Review of U.S. Patent No. 9,769,427 (“Petition”), as IPR2023-01240,¹ which challenges claims 1, 2, 3, 4-9, 14-18, 20, 22, 32, and 34-36 (the “Challenged Claims”) of U.S. Patent No. 9,769,427 (“the ’427 Patent”), assigned to NEC Corporation (“NEC” or “Patent Owner”) based on a combination of references. The Petition puts forth four Grounds of invalidity, each alleged obviousness under 35 U.S.C. § 103. As set forth below, the Petition should fail.

II. THE CHALLENGED PATENT

A. Technical Background

At the time of the priority date of the ’427 Patent, November 2008, a number of problems existed in the space of multimedia content delivery systems. These problems included the complexity related to the process of establishing a connection between two end points that wish to transmit and receive audiovisual material that the user wishes to view, while ensuring that the bandwidth required to facilitate transmission of these materials is reserved. Ex 2001 ¶ 33.

Content delivery systems at the time were required to execute a multi-step process including 1) establishing the connection between endpoints (i.e., the user’s

¹ Petitioner also filed a second petition, IPR2023-01241, against a different set of claims of the ’427 Patent.

device and the server storing viewing content), 2) reserving bandwidth for the communication session based upon the viewing content, and 3) transmitting a playlist for the viewing content itself, all steps that would require some number of data exchanges, associated network overhead costs, time allocation, and risk of error. Ex 2001 ¶ 34. 35. A POSA would understand a desire to simplify this process to create a more robust and efficient communication session. As such, there existed a need in the art to reduce the total number of messages required to perform these processes. Ex 2001 ¶ 35.

B. The '427 Patent

U.S. Patent No. 9,769,427 is the U.S. national stage application stemming from WO Application No. PCT/JP2009/006140, which in turn claims priority to the filing date, November 18, 2008, of Japanese Patent Application 2008-0294270.²

The claims generally recite a content delivery system for delivering main content (described as a “user’s desired content,” *see* Ex 1001 at 1:48-52) and sub content (e.g., content that is in addition to the main content) to a user’s device. The main and sub content are selected based upon selection criteria sent from the user’s device, though the sub content may be selected based on the main content to be

² Patent Owner does not concede that this is the earliest priority date of the '427 Patent and reserves all right to present further evidence showing an earlier invention or priority date.

provided. In response, at an application server, the server selects the main and sub content to be transmitted. While the connection is established between the server and the user equipment, the server transmits play-list information to the user, which includes identification information for the main content and the sub content and identifies the sequence in which the main and sub content are to be output. In addition, during the connection process, the system is configured to execute a process for guaranteeing a bandwidth required for transmission of the main and sub content. *See, e.g.*, Ex 1001 at 8:51-63, Fig. 13. This ensures that the user's device, or at least the network between the user's device and the server, has reserved or otherwise mandated, the bandwidth required for the transmission is available during transmission. Previous systems, such as those utilizing the SIP or SDP Standard were unable to perform this process—at best (and as discussed below) systems utilizing the SDP Standard could only signal bandwidth requirements for a particular media to be transmitted, without a specific process in place to guarantee that bandwidth.

During prosecution of the '427 Patent, Patent Owner argued that “the present system can perform the process of establishing a connection and transmitting play-list information together in order to deliver the playlist information to the user immediately when the connection is established, thereby improving the user experience.” Ex 1002 at 72-73. This provides an advantage over the prior art by reducing the total number of messages and packets that need to be transmitted

between the devices in order to facilitate not only the connection between devices, but also reducing the overall resource overhead costs of establishing the communication session and determining the data to be transmitted between devices. Such a reduction improves the user experience. *Id.*

The '427 Patent provides at least two inventive improvements over content delivery systems that existed at the time. First, it allows for the transmission of main content and sub content to the user, wherein the main content can be selected by the user directly, and the sub content can be selected and transmitted based upon either the user specifically or the main content that is selected. Second, the '427 Patent teaches transmitting play-list information at a same time that the process for establishing a connection is executed, which occurs while a process for guaranteeing a bandwidth required for the transmission is executed. Ex 2001 ¶ 39.

III. PERSON OF ORDINARY SKILL IN THE ART

A person of ordinary skill in the art ("POSA") at the time of invention of the '427 Patent would have had a bachelor's degree, or equivalent, in electrical engineering, computer science, or a related field, and 2-3 years of experience researching, designing, or developing content delivery systems and related hardware, software, and firmware or equivalent experience. A person having less education but more relevant practical experience, or more education and less experience, might also meet this standard. Ex 2001 ¶ 22.

IV. THE BOARD SHOULD EXERCISE ITS DISCRETION TO DENY INSTITUTION

A. Institution Should be Denied under 35 U.S.C. § 325(d)

In determining whether to institute an IPR, the Board may reject a petitioner's petition because "the same or substantially the same" prior art or arguments previously were presented to the Board. 35 U.S.C. § 325(d); *see also* The Patent Trial and Appeal Board Consolidated Trial Practice Guide (Nov. 2019) ("CTPG")³ at 61. Whether proffered art or arguments are "the same or substantially the same" as art or arguments previously presented to the Office is a highly factual inquiry, which may be resolved by reference to the factors set forth in *Becton*. *See Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 (P.T.A.B. Dec. 15, 2017) (precedential as to §III.C.5, first paragraph).⁴ If a petition presents

³ Available at

<https://www.uspto.gov/sites/default/files/documents/tpgnov.pdf?MURL=TrialPracticeGuideConsolidated>.

⁴ The *Becton* non-exclusive factors include: "(a) the similarities and material differences between the asserted art and the prior art involved during examination; (b) the cumulative nature of the asserted art and the prior evaluated during examination; (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection; (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art; (e) whether the Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments." *Becton*, Paper 8 at 17-18.

the same or substantially the same art or arguments that were previously considered by the Patent Office, the Board determines whether a petitioner has shown that the examiner materially erred when evaluating that art or argument. *See Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 10 (P.T.A.B. Feb. 13, 2020) (Precedential). Here, Petitioner has failed to provide any analysis of § 325(d) whatsoever. Rather, Petitioner, in a conclusory fashion, briefly states that “[d]enial of institution under § 325(d) would be inappropriate because this petition relies on grounds and arguments not previously presented to the Office. The relied-upon art was not considered during prosecution.” Petition at 20. Not only is this factually incorrect, but also grounds for the Board to deny institution. Thus, the Board should deny institution under 35 U.S.C. § 325(d).

1. The same or substantially the same prior art or arguments were presented to the Patent Office⁵

Petitioner raises four grounds challenging the claims for obviousness. The Petitioner fails to address or even mention any of the *Becton* factors in regard to disproving that the art of record is the same or substantially the same as U.S. Patent

⁵ *Becton* factors (a), (b), (d) include: (a) the similarities and material differences between the asserted art and the prior art evaluated during examination; (b) the cumulative nature of the asserted art and the prior art evaluated during examination; and (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art. *See Becton, Dickinson*, IPR2017-01586, Paper 8 at 17–18 (precedential in relevant part).

Publication No. 2009/0094321 (“Ueda”) (primary), RFC 3261: Session Initiation Protocol (“SIP Standard”) (secondary), RFC 4566: Session Description Protocol (“SDP Standard”) (tertiary), U.S. Patent Publication No. 2009/0100496 (“Bechtolsheim”) (tertiary), and U.S. Patent Publication No. 2010/0010884 (“Cohee”) (tertiary). Petitioner’s analysis is therefore flawed.

As an initial matter, “when a prior art reference presented in a petition was already considered substantively by the Examiner, the petitioner has the initial burden to identify such errors made by the examiner with respect to that prior art reference.” *Neil Ziegmann, N.P.Z., Inc. v. Stephens*, IPR2015-01860, Paper 13 at 10 (P.T.A.B. Sept. 6, 2017). Nevertheless, the Petitioner here does not even acknowledge that SIP Standard and SDP Standard were presented to the Office, even though these references are cited on the face of the ’427 Patent. Ex 1001 at 1. Nor does Petitioner identify any alleged errors made by the Examiner in allowing the ’427 claims over the prior art of record.

Patent Owner addressed both the SIP Standard and the SDP Standard within the text of the patent. *See, e.g.*, Ex 1001 at 6:1-31, 13:14-58, Figs.7-9 (identifying the SIP Standard); *id.* at 19:38-58 (identifying the SDP Standard). Consequently, the Examiner would have been fully aware of, and considered, the disclosures of SIP Standard and SDP Standard during the prosecution of the ’427 Patent. Accordingly, SIP Standard and SDP Standard are the same prior art previously presented to the

Office for purposes of § 325(d). *Ziegmann*, IPR2015-01860, Paper 13 at 18-19 (expanded panel finding that same references were “‘previously ... presented to the Office’ pursuant to Section 325(d) [because] *Ziegmann*, the primary reference relied upon by Petitioner for all proposed grounds of unpatentability, was previously presented to the Office in an IDS.”).

While the petition also relies on further tertiary references—*Bechtolsheim* and *Cohee*—in addition to SDP Standard, the petition does not explain the relative strength of *Bechtolsheim* and *Cohee* to any of the references presented during prosecution of the ’427 patent. As *Ziegmann* made clear, it is Petitioner’s burden to make such a showing under these circumstances. *Ziegmann*, IPR2015-01860, Paper 13 at 8, 10, 20-21 (“Petitioner does not identify any analysis in the Petition concerning the relative strength of any of the secondary references [relied in the Petition] as compared to *Armstrong* [which was presented during prosecution of the patent at issue].”).

Moreover, the fact that *Ueda*—the only primary reference relied upon in the petition—is substantially the same reference previously presented to the Office, *Aarts* (U.S. Pub. No. 2008/0256216, Ex 2005), standing alone, “is a sufficient basis to exercise [the Board’s] discretion under Section 325(d)” —even if *Bechtolsheim* and/or *Cohee* are deemed not to be the same or substantially the same as those previously before the Office. Petitioner argues that *Ueda* in combination with

secondary and tertiary references renders obvious the claims asserted in the four grounds. Specifically, Petitioner alleges that *Ueda* “teaches a server 191 that delivers content and a playlist to [a] content providing device 150 through a network[,]” where the “[s]erver 191 generates an allowed processing list ... and/or has an authentication processing unit.” Petition at 22. Petitioner further claims that *Ueda* “also teaches establishing a connection between server 191 and content providing device 150.” *Id.* However, *Ueda*’s disclosure is substantially the same as *Aarts*, prior art of record. Ex 1003.

The Examiner indicated that *Aarts* discloses an “application server system[] configured to retrieve advertisement information in accordance with the user information and transmit it to the user device” and an “authentication service [that] generates advertisement information in accordance with the received authentication information[.]” Ex 2004 at 33. By comparison, Petitioner relies upon *Ueda* for allegedly teaching “a content delivery device comprising a server 191 that delivers content and a playlist to a user equipment,” Petitioner at 12, wherein “[s]erver 191 receives a user ID [i.e., user information] . . . then establishes a connection with content providing device 150,” *id.* at 14, and selects the commercial content [i.e., advertisement information] for the individual user based on user-preference or personal information [i.e., authentication information],” *id.* at 15, and which contains an “authentication processing unit,” *id.*

at 22. Accordingly, *Ueda* is substantially the same prior art previously presented to the Office for purposes of § 325(d). *Ziegmann*, IPR2015-01860, Paper 13 at 21, n.9 (“Indeed, even if we were to accept Petitioner’s assertions concerning the secondary references, the presence of *Ziegmann* [i.e., the primary reference] alone, both in the Petition and the prosecution history, is a sufficient basis to exercise our discretion under Section 325(d).”).

In sum, Petitioner presents “the same or substantially the same prior art or arguments” as those previously presented to the Office during the prosecution of the ‘427 patent. Therefore, *Becton* factors (a), (b), and (d) support denial of Institution.

2. Petitioner failed to establish the Office erred in a manner material to the patentability of the challenged claims⁶

As the Board’s precedential *Advanced Bionics* case makes clear, when, as here, substantially the same art and arguments were previously before the Examiner, and “the petitioner fails to make a showing of material error, the Director generally will exercise discretion not to institute.” *Advanced Bionics*, IPR2019-01469, Paper 6 at 9. As the Board explained, “this framework reflects a commitment to defer to

⁶ *Becton* factors (c), (e), (f) include: (c) the extent to which the asserted art was evaluated during examination, including whether it was the basis for rejection; (e) whether petitioner has pointed out sufficiently how the examiner erred in evaluation of the asserted prior art; and (f) the extent to which additional evidence and facts in the petition warrant reconsideration of the prior art or arguments. See *Becton, Dickinson*, IPR2017-01586, Paper 8 at 17–18 (precedential in relevant part).

previous Office evaluations of the evidence of record unless material error is shown.” *Id.* Petitioner fails to assert that the Examiner erred in the Examiner’s evaluation of the asserted prior art and therefore has failed to meet its burden of showing the Office erred in a manner material to patentability. Given the Petitioner’s failure to address this important issue, the petition should be denied.

V. CLAIM CONSTRUCTION

Petitioner has proposed three terms for construction in its Petition. As an initial matter, Petitioner’s proposed constructions should be disregarded because they are inconsistent with Petitioner’s claim construction positions in the corresponding District Court litigation. Petitioner did not propose for construction in the district court any of the terms it seeks to construe here. In fact, Petitioner proposed constructions for two completely different terms in the ‘427 patent in the district court. *Compare* Petition at 8-13 *with* Ex 2003 at 35-41.

The standard for claim construction in an IPR proceeding is set forth in 37 C.F.R. § 4.100, which was implemented, in part, to ensure consistent claim construction across different proceedings, and to prevent a situation in which the Board and a District Court provide different constructions. *See* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51340-01 (Oct. 11, 2018); *see also* *M2M Sols. LLC v. Sierra Wireless Am.*, Case No. 14-1102-RGA, 2020 WL 7767639 (D. Del.,

Dec. 4, 2020) (37 C.F.R. § 42.100(b) “was intended to eliminate issues stemming from the application of different claim construction standards in each tribunal”). Yet this situation is precisely what Petitioner seeks to have happen by proposing different constructions in the Petition than were proposed in the corresponding district court litigation. Since no construction for these terms was proposed by Petitioner in litigation, they should be construed according to their plain and ordinary meaning.

Although Patent Owner disagrees that any of the below terms require construction for the purpose of the present petition, and should be accorded their plain and ordinary meaning, Patent Owner addresses Petitioner’s proposed constructions below in the event they are considered by the Board.

A. “equipment specification information”

Petitioner has proposed that the term “equipment specification information” should be construed to mean “an identifier for identifying the user equipment.” Patent Owner disagrees and believes that this term should be given its plain and ordinary meaning. Ex 2001 ¶¶ 42-43. Ultimately, however, construction of this term is irrelevant to Patent Owner’s arguments, and does not alter the conclusion that Petitioner’s arguments fail to show that the Challenged Claims are obvious in view of the cited art.

B. “the one or more connection control servers executes a process for guaranteeing a communication bandwidth required for

transmitting content data as a process for establishing the connection”

Petitioner proposes that the term “the one or more connection control servers executes a process for guaranteeing a communication bandwidth requires for transmitting content data as a process for establishing the connection” should be construed as “a standard process performed by SIP servers using SIP messages.” Petition at 10; Ex 1008 ¶ 64. This construction should be rejected.

Contrary to Petitioner’s allegation that “[t]he specification does not elaborate further on what is meant by ‘a process to guarantee a communication bandwidth,’” Petition at 10, the specification provides further explanation of the bandwidth guarantee process, which is ignored by Petitioner. The specification describes that “the core IMS part 30 executes a bandwidth reservation process as preparation for guaranteeing a communication bandwidth.” Ex 1001 at 13:59-64. As explained in the ’427 Patent, this bandwidth reservation process is part of the bandwidth guarantee process, contrary to Petitioner’s statement that it would simply be a “standard” SIP message. The ’427 Patent explicitly differentiates between the standard SIP messages (such as the “OK message” relied upon by Petitioner, *see* Petition at 10) and the recited “bandwidth guarantee process.” Ex 2001 ¶ 45. As described in the ’427 Patent, the “OK message” is transmitted either as a “bandwidth guarantee *instruction* or transmission preparation completion notification,” Ex 1001

at 15:49-56, which are each distinct from (if related to) the actual bandwidth guarantee process. *Id.*

The “bandwidth guarantee process” is explained as

the core IMS part 30 transmits, to the transport functions part 80, the received communication bandwidth information and communication channel specification information for specifying a communication channel between the user equipment 2 and the media server 4b specified by the received media delivery specification information. Thus, the transport functions part 80 execute a process to guarantee the communication bandwidth represented by the received communication bandwidth information on the communication channel specified by the received communication channel specification information (bandwidth guarantee process)

Ex 1001 at 15:29-40. This explanation contradicts Petitioner’s claim that “[t]he specification does not elaborate further on what is meant by ‘a process to guarantee a communication bandwidth.’” Petition at 10; Ex 1008 ¶ 64; Ex 2001 ¶ 46. In fact, this description illustrates that the “transport functions 80” are responsible for the bandwidth guarantee process—a function which the SIP Standard is incapable of doing because the SIP Standard is not a transport function, but works independent of the underlying transport protocols, which would actually execute a process for guaranteeing a bandwidth. See Ex 1004 at 9 (“SIP is a . . . tool for creating, modifying, and terminating sessions that works *independently of underlying transport protocols*”) (emphasis added); *id.* at 1 (“SIP runs on top of several different

transport protocols”). Petitioner’s construction does not consider, explain, or attempt to differentiate from this description in the patent.

For these reasons, Petitioner’s proposed construction should be disregarded, and the term given its plain and ordinary meaning as understood by a POSA at the time of the invention. Ex 2001 ¶ 48. To the extent an explanation of this plain and ordinary meaning is required, Patent Owner proposes that a POSA would understand this term to mean “a process as part of the connection process, for reserving or otherwise mandating that a bandwidth is available for transmission.” *Id.*⁷

C. “at a same time . . . transmit[ting] the play-list information . . . to the user equipment which has transmitted the content delivery request.”

Petitioner has also proposed that the claim term “at a same time . . . transmit[ting] the play-list information . . . to the user equipment which has transmitted the content delivery request” be construed to mean “a standard process

⁷ Petitioner’s proposed construction should also be disregarded because it is not actually a construction. No information is provided on *what* these “standard process[es]” are, or how they would perform bandwidth guarantee as required. Such a construction would also completely alter the plain and ordinary meaning of the term, given that the specification *explicitly* contemplates the use of “transport functions” (as opposed to the SIP Standard) for carrying out the bandwidth guarantee process. *See Thorner v. Sony Computer Entertainment Am. LLC*, 669 F.3d 1362, 1367 (Fed. Cir. 2012) (“The patentee is free to choose a broad term and expect to obtain the full scope of its plain and ordinary meaning unless the patentee explicitly redefines the term and disavows its full scope.”). Thus, since Petitioner’s proposed construction would introduce uncertainty modify the plain and ordinary meaning of the claims. Petitioner’s proposed construction should be disregarded.

performed by SIP servers using SIP messages.” Petition at 12; Ex 1008 ¶ 67. According to Petitioner, “[t]he specification does not elaborate further on the timing of transmitting the play-list information relative to executing the bandwidth guarantee process.” Petition at 12. This is incorrect.

The ’427 Patent explains that, according to certain embodiments

no other message than the connection establishment message need be transmitted for the service control server 4a transmitting the play-list information to the user equipment 2. This means that the number of communications can be reduced among the connection control system 3, the service control server 4a and the user equipment 2. In other words, the processing load and/or communication load required for the connection control system 3, the service control server 4a and the user equipment 2 to exchange messages can be relieved.

Ex 1001 at 19:13-22. The transmission of play-list information and the connection establishment, proceed “at a same time” as one another.⁸ This explanation is also completely consistent with the portion of the ’427 Patent’s prosecution history cited by Petitioner. Petition at 11. In response to a Non-Final Office Action, Patent Owner stated that the transmitter is “configured to transmit play-list information at a same

⁸ Petitioner appears to confuse the plain language of this claim term, suggesting that it requires transmission of the play-list at a same time as the *bandwidth guarantee* process. This is not so. Rather, the ’427 Patent claims the (relative) timing of the play-list transmission with the connection establishment process. While the bandwidth guarantee process occurs during the connection establishment process, it is not required to occur “at a same time” as the play-list transmission. Cooperstock Declaration ¶ 52.

time that the one or more connection control servers executes a process for establishing the connection. Ex 1002 at 72-73. This arrangement—which relates to transmission of the play-list information to the connection establishment, not the bandwidth guarantee as suggested by Petitioner—allows the system to “perform the process of establishing a connection and transmitting play-list information together in order to deliver the playlist information to the user immediately when the connection is established, thereby improving the user experience.” *Id.*

Further, and as with the “bandwidth guarantee process” term, despite suggesting incorrectly that the ’427 Patent does not “elaborate” on the timing of these processes, Petitioner has not actually proposed a construction. Rather, Petitioner states generally that “the timing of the OK messages . . . is a standard process performed by SIP servers using SIP messages.” Petition at 12; Ex 1008 ¶ 67. This provides no clarity to the meaning of the term, and in fact, significantly broadens it to, theoretically, cover any “standard process” executed by “SIP servers using SIP messages.” Ex 2001 ¶ 52.

Patent Owner proposes that the term should be accorded its plain and ordinary meaning, as understood by a POSA at the time of the invention of the ’427 Patent.

VI. PETITIONER FAILS TO SHOW THAT IT IS MORE LIKELY THAN NOT THAT AT LEAST ONE OF THE CLAIMS CHALLENGED IN THE PETITION IS UNPATENTABLE

A. Petitioner Fails to Show Obviousness over Ueda with SIP Standard and SDP Standard (Ground 1 – Claims 1, 4-9, 14, 16, 18, 20, 22, 32, and 34-36)

1. Overview of SIP Standard

The “SIP: Session Initial Protocol” (“SIP Standard”) is an Internet protocol which describes an “application-layer control (signaling) protocol for creating, modifying, and terminating sessions with one or more participants.” Ex 1004 at 1 (Abstract). In establishing and terminating multimedia communications, the SIP standard supports five different primary “facets”:

- User location;
- User availability;
- User capabilities;
- Session setup; and
- Session management.

Id. at 9. However, the SIP Standard, on its own, is not responsible for the transmission of the requested multimedia content. Rather, the SIP Standard provides “primitives” that can be used to “implement different services,” but does not “provide services.” *Id.*

As a result, SIP is not the transport protocol responsible for transmitting media, and in fact, SIP “runs on top of several different transport protocols,” *id.* at 1 (Abstract), and “works independently of underlying transport protocols and without dependency on the type of session that is being established.” *Id.* at 9.

2. Overview of SDP Standard

The “SDP: Session Description Protocol” (“SDP Standard”) is, like the SIP Standard, an internet protocol. The SDP Standard is specifically intended for “describing multimedia sessions for the purpose of session announcement, session invitation, and other forms of multimedia session initiation.” Ex 1005 at 1 (Abstract). Like the SIP Standard, the SDP Standard is primarily a signaling protocol. That is, it does not implement any functions or methods directly, but rather, provides (as its name implies) descriptive information to facilitate and improve a session.

In order to facilitate this, the SDP Standard can provide the following information:

- Session name and purpose;
- Time(s) the session is active;
- The media comprising the session (e.g., the name of media or other metadata, *see id.* at 6); and
- Information needed to receive the relevant media.

Id. at 5. In addition, the SDP Standard can also include: information about the bandwidth to be used by the session and contact information for the person “responsible for the session.” *Id.* Notably, though, the SDP Standard does not take any actions to ensure or reserve a bandwidth for a transmission – it merely discloses an identification of bandwidth for a particular media session.

This information is “entirely textual” comprising a series of lines of simple text denoting different fields and values. *Id.* at 8. These values (in the form of the “v=” “o=” “t=” and others described throughout) in turn provide the “description” for that particular media session – where a value is not understood, it must be ignored. *Id.* at 8-9.

3. No Motivation to Combine Ueda with the SIP Standard

Petitioner relies upon the combination of Ueda with the SIP Standard and the SDP Standard for Ground 1 of its Petition alleging that the Challenged Claims are obvious in view of the combination of these references. *See* Petition at 3-4, 22-34; *see also* Ex 1008 ¶¶ 102-110. To support this ground, the Petitioner first attempts to provide a motivation to combine Ueda with the SIP Standard. However, Petitioner’s proposed motivation to combine is conclusory and cursory, and fails to provide a motivation to combine adequate to justify combining the references as proposed. *See Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367 (Fed. Cir. 2016) (“[O]ne must have a motivation to combine accompanied by a reasonable

expectation of achieving what is claimed in the patent-at-issue.”); *see also Hulu, LLC v. Sound View Innovations, LLC*, Case IPR2018-00582, Paper 34 at 22 (P.T.A.B. Aug. 5, 2019) (“[T]he fact that the combination might have been successful does not mean that an ordinarily skilled artisan would have been motivated to make the combination.”) (citing *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015)).

Petitioner begins by admitting that Ueda “does not explicitly describe the intermediate servers that would necessarily and inherently intermediate between and connect the content providing 150 and the server 191.” Ex 1008 ¶ 103. According to Petitioner’s expert, Dr. Reader, there are three alleged advantages to combining Ueda with the SIP Standard: “to assist Ueda’s content providing device 150 with locating the server 191 on the Internet, signaling its desire to communicate with the server 191, and characterizing the communication session.” *Id.* ¶ 104.

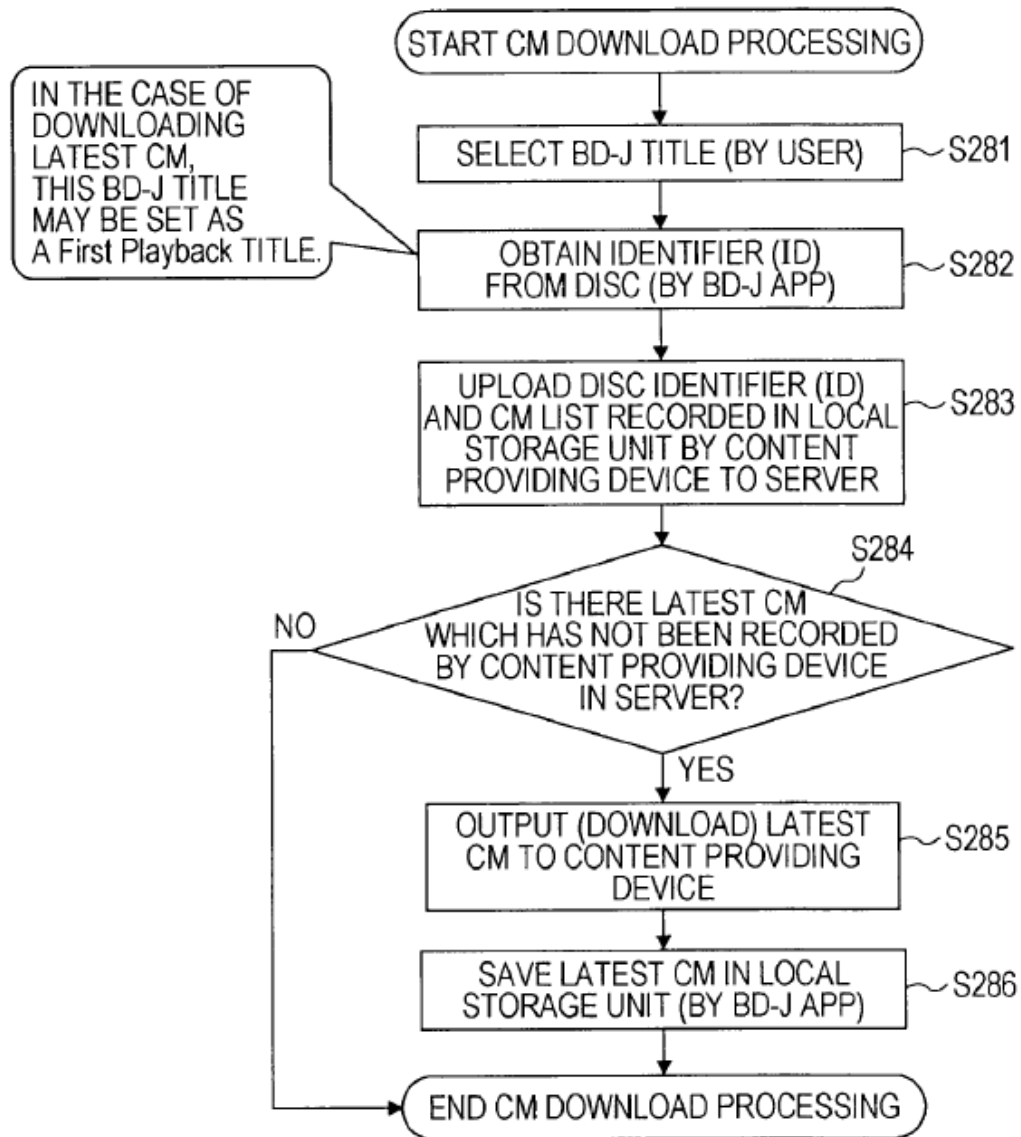
But Petitioner’s rationale for modifying Ueda with the SIP Standard is deficient because Ueda already provides for the alleged “advantages” and Petitioner provides no reason why a POSA would have abandoned these techniques and gone through the effort to replace them with techniques from a different reference. Ex 2001 ¶ 67. Furthermore, integration of the SIP Standard would not be necessary. The locating services of SIP’s proxy servers are intended for scenarios in which the user agents are not at a fixed, known address. This differs from the scenario envisaged

by Ueda, in which the desired media contents are available for access on demand and stored on a server with a known “URL to be accessed,” which, therefore, does not need to be discovered. Ex 1003 ¶ 0132; *see also* Ex 2001 ¶ 67.

Petitioner’s proposed combination instead seeks to solve a problem which Ueda has already solved. Ueda specifically addresses how to locate the server 191, and signals its desire to communicate with the server, without the need for incorporating the SIP standard. This process is described in Figure 15, reproduced below. As explained in Ueda, the BD-J disc “uploads the identifier (ID) corresponding to the disc recorded in the disc obtained in step S282, and a list of the commercial contents which the content providing device 150 stores in the local storage unit 155.” Ex 1003 ¶ 0228; Ex 2001 ¶ 67. Upon receipt of a content request, the requested server responds in one of two ways:

- “[W]herein the server holds no new commercial content to be provided to the user, the processing is ended.” *Id.* 0230.
- “[W]herein the server holds a new commercial content to be provided to the user, in step S285 the server transmits the latest commercial content to the content providing device on the user side.” *Id.*

FIG. 15



See Ex 2001 ¶ 67.

Identification of this server is provided specifically through the “First Content Management Application (BD-J app1)” located on the disc 100, of Ueda, and includes software for “providing a URL to be accessed.” Ex 1003 ¶¶ 0127-0132; Ex

2001 ¶ 68. But, per the explicit terms of Ueda, this URL is provided and identified “before connection with the server” and thus the URL (that is, the server location) is located on the disc, before any internet connectivity occurs. Ex 1003 ¶¶ 0128-0132; Ex 2001 ¶¶ 68-70. A POSA would understand that conventional techniques, including the use of the well-known Domain Name System (DNS) lookup (if the server address is provided as a human-readable domain name) and IP routing protocol could be used to perform this step, and thus integration of the SIP Standard would be unneeded and introduce new problems to solve, such as the use of additional proxy servers and routing information for finding and signaling into the existing system of Ueda. Ex 2001 ¶¶ 67-68.

This comports with the overall system described in Ueda, which utilizes software located on a physical disc (specifically a BD-J disc, which is a “Java . . . application to be applied to a Blu-ray Disc,” Ex 1003 ¶ 0126) to identify the server where content *may* be located but does not contemplate a process (or need) for locating further servers—instead Ueda contemplates that “[i]n a case wherein the server holds no new commercial content to be provided to the user, the processing is ended.” Ex 1003 ¶ 0230; Ex 2001 ¶ 69.

With respect to the second alleged “motivation,” signaling the system’s desire to communicate, Ueda provides for such a step, and there would be no benefit to incorporating the SIP Standard. Ueda describes the steps by which the user (content

providing device 150) signals its desire to communicate with server 191. *Id.* ¶¶ 0121-0141. There is an inherent incompatibility with Ueda and the SIP Standard with respect to this step, which Petitioner fails to address. Ex 2001 ¶ 69. In Ueda, the second and third content management applications are themselves downloaded directly from the, already identified, server, and executed on the user's device. *Id.* ¶¶ 0136, 0141. Execution of these applications ultimately allows for download of the selected media. *Id.* ¶ 0172; Ex 2001 ¶ 69. Yet SIP does not support the downloading of content management applications from a server that are "executed at the time of recording download data" Ex 2001 ¶ 69. In addition, Ueda's server determines what content management application to provide to the content providing device based on identification information transmitted to the server from the user and, for example, by "content usage condition information corresponding to a contentID or userID" held by the server, in contrast with the SIP Standard, where the requestor will *directly* specify the media stream of interest. *Id.* ¶¶ 0147-0148; Ex 2001 ¶ 69. In this respect, Ueda's server determines what options are provided to the user for selection of download content, *id.* ¶ 0149, in contrast with the SIP Standard, which relies upon the requestor identifying the appropriate content. Petitioner provides no explanation regarding how to solve this incompatibility, whether a POSA would expect success in pursuing this path, much less why a POSA would be motivated to pursue this approach in the first place.

Furthermore, contrary to Petitioner’s expert’s statement that a POSA would be motivated to combine these references to transmit information “characterizing the communication session,” Ex 1008 ¶ 104, Ueda’s transmission already does this and thus a POSA would not be motivated to look to the SIP Standard to implement this functionality. Even assuming that Ueda does *not* include information to characterize a communication session, Petitioner still fails to identify any reason or motivation for why a POSA would wish to incorporate such information ***into a content request***.

Ueda discusses the use of various information which “characterize[es] the communication session” to determine which content to request from the content server, which is outlined by the process in Figure 15, reproduced above. As shown, the user selects a BD-J title S281, which in turn triggers the BD-J app to select an “identifier” located on the physical disc S282. This identifier (ID) is then transmitted to the server (selected previously before connection based on information already located on the disc, as set forth above), which determines whether a new “CM” is to be downloaded S284. If so, the “latest CM” is transmitted to the user device S285, and if not, the processing is ended. *Id.* ¶¶ 0221-0230.

Accordingly, Petitioner has not identified any reason why a POSA would be motivated to include further information “characterizing the communication session,” and notably, does not cite to any portion of Ueda that would provide such motivation. Since Ueda already accounts for this feature, combining it with the SIP

Standard to provide the feature would be redundant, and actually cautions against combining the references as Petitioner has proposed. Ex 2001 ¶ 71; *see also South-Tek Sys., LLC v. Engineered Corrosion Solutions, LLC*, 748 Fed. Appx. 1003, 1007 (Fed. Cir. 2018) (“Given the redundant function of [first prior art reference’s] drum drip and [second prior art reference’s] condensate drain, the Board found a person of ordinary skill would not have been motivated to add a condensate drain...in addition to the system’s drum drip drain.”).

Petitioner further argues that a POSA would have been motivated to combine Ueda with the SIP Standard in order to provide “[s]ecurity” as the SIP Standard teaches ‘that proxy servers ‘authenticate and authorize users for service’ and ‘[r]ecipients of requests can authenticate the originator of a request in order to ascertain that they are who their From header field claims they are’” Petition at 23 (quoting Ex 1004 at 1, 37).

However, Petitioner again fails to explain why a POSA would be motivated to incorporate this security architecture involving additional intermediary servers to provide “security” when Ueda either 1) already has a security mechanism in place or 2) operates without any need for further verification/authentication. Ex 2001 ¶ 73. Certain embodiments of Ueda do not even consider the identity of the user, instead relying on the content ID located on the physical disc to transmit the requested content. Ex 2001 ¶ 73. However, even in those embodiments where user

identification is employed (such as the embodiment illustrated in Figure 25), authentication is already disclosed within Ueda, performing the security functioning that Petitioner alleges the SIP Standard may provide. *Id.* ¶¶ 73-75. *See also* Ex 1003 ¶¶ 0340, 0344, 0354, 0360, 365. Ueda also provides for such authentication in the form of its “allowed processing list” and “settlement processing,” which would make integrating the SIP Standard’s system redundant. Ex 2001 ¶ 73; Ex. 1003 ¶¶ 0150, 0344-46.

In addition, Petitioner fails to provide adequate explanation as to why a POSA would be met with a “reasonable expectation of success” in combining Ueda with the SIP Standard. *See Johns Manville v. Knauf Insulation, LLC*, IPR2018-00827, Paper No. 9 at 13 (P.T.A.B. Oct. 16, 2018) (Informative) (noting that it is the Petitioner’s burden to show both a motivation to combine *and* that a POSA would have a reasonable expectation of success in combining the references). To support this claim, Petitioner merely presents the conclusory statement that a POSA would have had a “reasonable expectation of success in intermediating a media session between the server 191 and content providing device 150 of Ueda.” Petition at 24. Though Petitioner cites to its expert for this proposition, *see* Ex 1008 ¶ 107, the declaration is equally conclusory with respect to the expectation of success, being a near verbatim copy of the Petition’s assertion. *Compare* Petition at 25 *with* Ex 1008 ¶ 107; *see also Johns Manville*, IPR2018-00827, Paper 9 at 13 (disregarding citation

to expert declaration that is “largely duplicative” of Petition). Given the extent of modifications required to incorporate an entirely new intermediary server where Ueda does not contemplate such an arrangement, Petitioner is required to provide more than simply an unsupported and conclusory statement regarding the expected success of such a combination. *See id.* at 13; *see also Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367-68 (Fed. Cir. 2016) (noting Petitioner bears the burden to show a “reasonable expectation of success” in combining references).

For at least these reasons, Petitioner has failed to meet its burden of showing that a POSA would be motivated to combine Ueda and SIP Standard. Even if Ueda and the SIP Standard were combined as proposed by Petitioner, the proposed combination fails to disclose the features of the Challenged Claims of the ‘427 Patent.

4. No Motivation to Combine Ueda with the SIP Standard and the SDP Standard

In Ground 1, Petitioner also proposes combining Ueda and the SIP Standard, further, with the SDP Standard. According to Petitioner, this combination would be “obvious” since the SDP Standard states that “SIP messages . . . are commonly formatted using SDP,” Petition at 24; Ex 1008 ¶ 110 (internal emphasis removed); *see also* Ex 1005 at 4, § 3.1.

Even assuming *arguendo* that it may have been “common” to format SIP messages using the SDP Standard, Petitioner provides no explanation, and as a result no motivation, for why a POSA would choose to modify Ueda with SDP. Petitioner argues that a POSA would have been motivated to combine . . . so as to convey media details, transport addresses, and other session description metadata to participants for initiating multimedia sessions.” Ex 2001 ¶ 77. Ex 1008 ¶ 110; *see also* Petition at 24.

However, Petitioner fails to address the fact that Ueda already contemplates provision of such information, making it redundant and unnecessary to turn to other references as Petitioner proposes. Ex 2001 ¶ 78. Ueda recognizes a particular need in the art for “a content providing device, data processing method, and computer program whereby content information and so forth employed by a client is obtained to manage client information, and a content is provided based on management information.” Ex 1003 ¶ 0016. In order to facilitate this content provision, Ueda provides several pieces of information, duplicating the information that Petitioner alleges is provided by SDP. Ex 2001 ¶ 78.

According to Petitioner, the SDP Standard provides three pieces of information that would motivate a POSA to combine this reference with Ueda and the SIP Standard:

- “[M]edia details”

- “[T]ransport addresses” and
- “[O]ther session description metadata”

Ex 1008 ¶ 110; *see also* Petition at 24.

But Ueda already provides for transmission of such information and Petitioner provides no further explanation or justification for adding in SDP to provide information that is already handled within Ueda, and identifies no further advantages that would be provided by the use of the SDP Standard. Ex 2001 ¶ 80. To exemplify this, Patent Owner provides an annotated version of Figure 30 of Ueda, showing “media details,” in the form of content identification, which is transmitted from the user device 150 (after selection by the user on the BD-J app at step S543) to the server 191. This also includes the “transport address[]” for the server, since, as noted previously, the BD-J app provides “a URL to be accessed” with this URL corresponding to the server address, pre-programmed into the BD-J app, for identifying the server to which the user device should transmit the content ID, and finally, Ueda also already transmits certain “description metadata” information, including information about content that has already been viewed. This includes the “Titles #1 and #2 Viewed and Listened” information” shown below, and can also include the other information (such as the content providing device identifier, user identification information, or user information) noted in Figure 30. Ex 2001 ¶¶ 80-81.

As Ueda already contemplates provision of all the information allegedly provided by the SDP Standard, Petitioner has failed to demonstrate an adequate motivation to combine Ueda, the SIP Standard, and SDP Standard in order “to convey” this information. Even if, for the sake of argument, it is conceded that the SIP and SDP Standards are related and cross-compatible, as Petitioner alleges, Petitioner has still failed to provide a reason to combine these with Ueda. Each of the proposed “features” or “advantages” identified are features that are already included in Ueda. *See South-Tek Sys.*, 748 F.App’x at 1007 (rejecting motivation to combine where features would be redundant).

Furthermore, Petitioner does not provide any statement regarding whether and how SIP and SDP may be integrated into Ueda, but merely provides conclusory statements that a POSA “would have been motivated” to combine each of these references, with no discussion or even suggestion of how such modifications would affect the functioning of Ueda, which clearly contemplates a direct connection between the user’s device 150 and the server 191, without the need for proxy/intermediate servers (as required by the Challenged Claims of the ‘427 Patent). *See, e.g.*, Figs. 6, 7, 17-19, 21, 24, 26, 29, 30.

For this reason, Petitioner has also failed to provide a statement or explanation that a POSA “would have had a reasonable expectation of success” in combining Ueda, the SIP Standard, and the SDP Standard. *See Intelligent Bio-Sys. Inc. v.*

Illumina Cambridge Ltd., 821 F.3d 1359, 1367-68 (Fed. Cir. 2016) (explaining that invalidation requires *both* a motivation to combine *and* a showing that a “skilled artisan” would have had a reasonable expectation of success in doing so); *see also Johns Manville Corp. v. Knauf Insulation, Inc.*, IPR2018-00827, Paper 9 at 13-14 (P.T.A.B. Oct. 16, 2018) (Informative) (denying institution where requirement for “reasonable expectation of success” was not adequately supported).

Petitioner has not even stated in its Petition, nor has its expert stated, that a POSA would have had a reasonable expectation of success in combining the SDP Standard with Ueda. *See* Petition at 24 (no statement regarding expectation of success, only an alleged motivation to combine); *see also* Ex 1008 ¶¶ 109-110 (no statement regarding likelihood of success). As such, Petitioner’s argument to combine the SDP Standard with Ueda and the SIP Standard does not meet the requirements for a determination of obviousness, such that Ground 1 should be denied institution in its entirety. *See Trutek Corp v. Regents of the Univ. of Michigan*, IPR2022-00674, Paper 10 at 25 (P.T.A.B. Sept. 28, 2022) (“‘[T]he burden falls on the challenger’ to show that ‘a skilled artisan would have been motivated to combine the teachings of the prior art,’ *and* that a ‘skilled artisan would have had a reasonable expectation of success in doing so’”) (quoting *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1361 (Fed. Cir. 2007)) (emphasis added).

Even if combined, these references fail to teach several elements of the Challenged Claims, and thus Petitioner's challenge should fail as Petitioner has not shown that each and every element of the Challenged Claims is met by the combined references, as explained below.

5. [’427 Claim 1] SIP Standard does not teach “the one or more connection control servers executes a process for guaranteeing a communication bandwidth required for transmitting content data as a process for establishing the connection” (claim element [1g-1])

Petitioner relies entirely upon the SIP standard as allegedly disclosing “the one or more execution connection control servers executes a process for guaranteeing a communication bandwidth required for transmitting content data as a process for establishing the connection.” Petition at 47-49; Ex 1008 ¶¶ 186-89.

In support, the Petitioner points to various responses that can be generated according to the SIP Standard, such as a “200 (OK) message” as well as “a 3xx, 4xx, 5xx, or 6xx response”, which are sent “[i]f the invitation is not accepted.” Petition at 48; Ex 1008 ¶ 187. However, Petitioner fails to show that these messages constitute a “process for guaranteeing a communication bandwidth.” Ex 2001 ¶¶ 83-86.

In fact, the SIP Standard, explicitly denies the ability to “provide *any kind of network resource reservation capabilities*.” Ex 1004 at 10 (emphasis added). None of the messages transmitted by the SIP Standard mandate a particular action at the

receiving device (in this case, either the user's device or the server receiving the request). The SIP Standard is an "application-layer control (signaling) protocol," Ex 1004 at 1 (Abstract), which can "enabl[e] Internet endpoints (called user agents) to discover one another and to agree on a characterization of a session they would like to share." Ex 1004 at 9. In view of the SIP Standard's explicit denial of providing network resource reservation, which would necessarily include a "bandwidth guarantee process," Petitioner's reliance on the SIP Standard is misplaced. Therefore, Petitioner has not identified *any* reference that discloses or suggests a "bandwidth guarantee process" as required by all of the Challenged Claims. Ex 2001 ¶¶ 86-87.

This distinction is further amplified by the '427 Patent itself, which discusses the SIP Standard directly, noting that a separate transport protocol is used in order to actually transmit the requested content/data using a "predetermined communication protocol (in this example RTP (Real-time Transport Protocol))." Ex 1001 at 12:13-16. A POSA would understand that the SIP Standard, as a means for establishing, modifying and terminating communication sessions, does not provide commands that must be executed by the receiver. As such, it cannot "guarantee" a bandwidth required for a particular transmission since the SIP Standard cannot force the implementer to (and cannot itself) execute any particular process. Ex 2001 ¶ 87-88.

Even ignoring this clear distinction, Petitioner’s argument still fails since the identified SIP messages do not actually “guarantee” a bandwidth as required by the claim. Petitioner admits as much, conceding that “when a proxy server receives a 606 Not Acceptable Response with Warning 370, the proxy server recognizes that there is insufficient communication bandwidth to establish the session or transmit the requested media data, and thereafter *cancels the process for establishing the session.*” Petition at 48-49 (emphasis added); Ex 1008 ¶ 188; *see also* Ex 2001 ¶ 88.

Petitioner makes no attempt to square this explicit cancellation step (before a connection is established) with the Challenged Claims’ requirement to “execute[] a process for guaranteeing a communication bandwidth required for transmitting content data as a process for *establishing the connection.*” *See, e.g.,* Ex 1001at 37 (emphasis added). The SIP Standard is explicit, and Petitioner admits, that where bandwidth is not sufficient, it merely provides a flag indicating such; the SIP Standard does *not* mandate a particular action be taken by the implementer, at most, it merely sends a flag indicating that a requested bandwidth may not be available. Ex 2001 ¶ 88.

This failing is true of all of the “messages” and “warnings” that Petitioner identifies as part of the SIP Standard. With each of these, including the “Insufficient bandwidth” header of Warning 370, Petition at 48, serving as a possible explanation

for a 606 “Not Acceptable” failure, the SIP Standard is not, and cannot, perform any process to “guarantee” (or reserve, as noted above) a bandwidth. Ex 2001 ¶ 89.

Petitioner’s position thus suffers from a set of mutually exclusive deficiencies:

- If the server responds with a 6xx response (or any of the 3xx, 4xx, or 5xx messages), then a connection might *not* be established, and thus the Standard fails to teach a bandwidth guarantee that “establish[es] a connection” as required by the claims; or
- If the client/implementer ignores these flags (since, as noted above, the SIP Standard does not possess the ability to mandate particular content or behaviors) and a session is initiated, despite these warnings, then the server has failed to “guarantee a bandwidth” as also required by the claims.

Id. ¶ 90. Thus, Petitioner has failed to show that Ueda, in combination with the SIP Standard, discloses “the one or more connection control servers executes a process for guaranteeing a communication bandwidth required for transmitting content data as a process for establishing the connection.”⁹

6. [’427 Claim 1] SIP Standard in view of SDP Standard does not teach “at a same time that the one or more connection control servers executes a process for guaranteeing a communication

⁹ As this element is present (either directly or through dependency) in each of the Challenged Claims, and Petitioner identifies no other reference which discloses this feature, each of Petitioner’s grounds in the Petition must fail.

bandwidth required for transmitting content data as a process for establishing the connection” (claim element [1g-2])

Separately, Petitioner also relies upon the SDP Standard (in combination with Ueda and the SIP Standard) as disclosing or teaching “at a same time that the one or more connection control servers executes a process for guaranteeing a communication bandwidth required for transmitting content data as a process for establishing the connection.” Petition at 50-53.

The full claim element recites “at a same time that the one or more connection control servers executes a process for guaranteeing a communication bandwidth required for transmitting content data as a process for establishing the connection, *transmit the play-list information via the one or more connection control servers to the user equipment which has transmitted the content delivery request,*” illustrating the full claim requires the play-list be transmitted at a same time that the connection process is occurring.¹⁰

In order to reach this element, Petitioner relies upon the combination of the SIP Standard and the SDP Standard. However, Petitioner has failed (even assuming that these references can be properly combined with Ueda) to show that the SDP Standard discloses this element. Ex 2001 ¶¶ 93-99.

¹⁰ Patent Owner does not concede that these processes must be coterminal or even begun at the same time.

Claim element [1g-2] requires specifically that “play-list information” be transmitted as part of the connection process. As defined, play-list information is

information containing the main content identification information contained in the content delivery request and the selected sub content specification information, and . . . information indicating a sequence in which the main content identified by the main content identification information and the sub content specified by the selected sub content specification information are output.

See, e.g., Ex 1001 at 37:21-30; 41:4-15; 42:17-27.

Petitioner only alleges that the SDP Standard “teaches that an SDP description...can contain **both** bandwidth information...**and** information specifying the media.” Petition at 52. No mention of a play-list, let alone a play-list as defined in the Challenged Claims, is identified. *See* Ex 2001 ¶ 96. This weakness exists in each of the “fields” of the SDP Standard that Petitioner has identified:

- The “x-” and “p-” header fields are listed as being used to “transmit implementation-specific or vendor-specific information.” Petition at 54; Ex 1008 ¶ 203. Petitioner then concludes, with no explanation, that the “playlist” of Ueda could have been inserted into these fields. *Id.* Yet, no explanation is provided as to how or why the alleged playlist of Ueda is “implementation-specific or vendor-specific information,” why a POSA would choose these fields to convey the claimed playlist information, or why a POSA would

expect success in attempting to convey playlist information in this way. Ex 2001 ¶ 96.

- Similarly, the “a=” “u=” and “i=” fields, identified as “fields . . . for specifying information about the media pertaining to the media session,” suffer from the same weakness *Id.* Again, no explanation actually relating these fields to the playlist of Ueda, or identifying *why* a POSA would insert a full playlist into any of these fields is provided, but merely a conclusion that a POSA “would” have done it. Ex 2001 ¶ 96.
- Finally, the Petition also identifies the “m=” field, corresponding with “media field descriptions” as a potential field to contain Ueda’s playlist. *Id.* But yet again, no explanation is provided that explains *why* a POSA would be motivated to combine Ueda’s playlist with this field, or even how Ueda’s playlist qualifies as a “media field description.” *Id.*

Most notably, Petitioner concludes its arguments by stating “[t]hus, SDP Standard teaches that an SDP Description (and/or a SIP message carrying an SDP description) can contain **both** bandwidth information . . . **and** information specifying the media.” Petition at 52. But this is *not* what the claim requires. The claim requires that “at a same time that the one or more connection control servers *executes a process for guaranteeing a communication bandwidth . . . as a process for establishing the connection, transmit the play-list information* via the one or more

connection control servers.” Ex 1001 at 37:14-19. As noted above, *see supra* at 39-40 (explaining the definition of “play-list information” in the claims), “play-list information” covers much more than “information specifying the media” and further, a “process for guaranteeing a communication bandwidth” is far more than simple “bandwidth information.” See Ex 2001 ¶ 83-87 (explaining a “process for guaranteeing a communication bandwidth”). As such, Petitioner has failed to show that its deficient combination even maps to the claims.

With each of these, Petitioner provides only a cursory, conclusory statement that “it would have been obvious” to a POSA to implement the playlist of Ueda with each of the fields described in the SDP Standard. However, these mere conclusions are not supported by any explanation or reasoning. See *DSS Technology Management, Inc. v. Apple, Inc.*, 885 F.3d 1367 (Fed. Cir. 2018) (expert’s conclusory statement of motivation “[w]ithout a reasoned explanation that avoids conclusory generalizations” was not sufficient for purpose of IPR review) (quoting *Arendi S.A.R.L. v. Apple, Inc.*, 832 F.3d 1355, 1366 (Fed. Cir. 2016)) (internal quotations omitted); *see also Johns Manville*, IPR2018-00827, Paper 9 at 20 (P.T.A.B. Oct. 16, 2018) (Informative) (unsupported statements that it “would have been” obvious to combine references are not adequate).

Petitioner’s argument instead is premised on an almost textbook application of hindsight bias to the identified references. Throughout its Petition, and supported

by its expert, are numerous statements related to the field of the SDP Standard stating only that these fields “can” or “could” be used to arrive at the invention claimed by the Challenged Claims, rather than an explanation of *why* these elements should have been combined in the suggested way. *See Polaris Indus., Inc. v. Artic Cat, Inc.*, 882 F.3d 1056, 1068 (Fed. Cir. 2018) (finding the Board in error where they focused on “what a skilled artisan would have been *able* to do, rather than what a skilled artisan would have been *motivated* to do at the time of the invention”) (emphasis in original); *see also InTouch Techs., Inc. v. VGO Comms., Inc.*, 751 F.3d 1327, 1352 (Fed. Cir. 2014) (finding error where expert’s testimony “primarily consisted of conclusory references to her belief that one of ordinary skill in the art *could* combine these references not that they *would* have been motivated to do so.”) (emphasis in original).

The Petition is replete with examples of this hindsight bias. Petitioner, and its expert, repeatedly describe a POSA’s ability to use the fields of the SDP Standard to reach the elements of the Challenged Claims:¹¹

- “SDP Standard describes an attribute field (“a=”) that *can be used* to tailor SDP to particular applications or media.” Petition at 50-51.

¹¹ Patent Owner does not concede that the alleged features *do* teach or suggest the features of the Challenged Claims, as discussed above.

- “The attribute field *could* be used to carry a pointer to a media stream” Ex 1008 ¶ 195 (emphasis added).
- “The SDP Standard describes a session information field (“i=”) that *can* be used to provide textual information about a media session.” *Id.* (emphasis added).
- “The SDP Standard teaches a URI field (“u=”) that *can be used* as a pointer to additional information about a media session.” *Id.* (emphasis added).
- “An SDP description *can contain* a number of media descriptions.” Petition at 51 (emphasis added).
- “Thus, a POSITA would have understood that an ordering of media description fields in an SDP description *can be used* to specify an order of media of a media stream.” *Id.* at 52 (emphasis added).
- “As such, a POSITA would have understood that information pertaining to the media session . . . *could be* inserted into a head of a SIP message using widely known techniques.” *Id.* (emphasis added).
- “Thus, SDP Standard teaches that an SDP description . . . *can contain* both bandwidth information . . . and information specifying the media.” *Id.* (emphasis added).

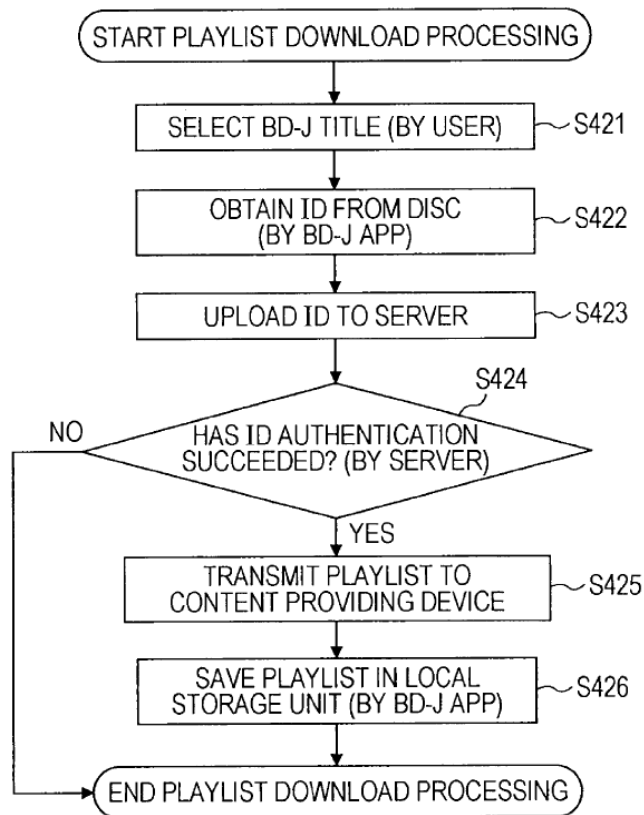
Beyond the simple fact that “play-list information” as recited in the claims is *not* equivalent to “information specifying the media,” Petitioner’s conclusory statements

provide no motivation as to why a POSA would actually be motivated to incorporate, modify, or even use the fields of the SDP Standard as it has proposed. *Allied Erecting and Dismantling Co., Inc. v. Genesis Attachments*, 825 F.3d 1373, 1381 (Fed. Cir. 2016) (“The test for obviousness is . . . whether ‘a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention.’”) (quoting *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1361 (Fed. Cir. 2016)). The only motivation that exists, even under Petitioner’s reasoning, to modify the SDP Standard in the way proposed comes from the ’427 Patent itself, a reasoning that can only be reached through the impermissible use of hindsight bias. See *Trivascular, Inc., v. Samuels*, 812 F.3d 1056, 1066 (Fed. Cir. 2016) (emphasizing that the Board “must still be careful not to allow hindsight reconstruction of references . . . without any explanation as to *how* or *why* the references would be combined to produce the claimed invention”) (quoting *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1368 (Fed. Cir. 2012) (emphasis in original)).

Nor can Petitioner overcome Ueda’s own teaching *against* providing “playlist” information at a same time that a connection is established, as Ueda teaches away from such a feature. Ex 2001 ¶ 99. As illustrated in Figure 25, reproduced below, which shows “a flowchart for describing a download processing sequence of a playlist,” Ex 1003 ¶ 0056, the *authentication* step S423 must be completed (and successful) *before* the playlist is transmitted. This is described as “[i]n a case wherein

the authentication has succeeded, the processing proceeds to step S425, where based on the disc identification information . . . the server obtains the playlist corresponding to the identification information from the database to transmit this to the content providing device.” *Id.* ¶ 0365; *see also* Ex 2001 ¶ 99. Ueda waits until authentication is complete before transmission of the playlist; it therefore teaches away from transmitting the playlist along with the connection information. *Id.*

FIG. 25



Petitioner’s argument fails to consider, or reconcile, this ordering of Ueda, which would prevent implementation of the proposed combination with the SDP Standard, in which the playlist is transmitted as part of the “Session Initiation,” even

if assuming, for the sake of argument, that the SDP Standard does disclose transmitting the noted fields at a same time that the SIP Standard executes. *Id.* Thus, even if the references were combined, Petitioner fails to identify any reason for why a POSA would choose to ignore the explicit teaching of Ueda in order to implement new timing requirements for the transmission according to Ueda. *Id.* ¶ 100

7. Claims 4-9 Are Not Obvious In View of the Cited References

Each of claims 4-9 depend, directly, from claim 1 of the '427 Patent. As discussed above, Petitioner has failed to submit adequate evidence showing a motivation to combine Ueda, the SIP Standard, and the SDP Standard, as proposed. *See supra* Sections VI.A.3 and 4. Further, and as discussed above, even if the references are combined as proposed, this combination fails to disclose each and every element of claim 1 of the '427 Patent. *See supra* Sections VI.A.5 and 6.

As such, Petitioner has failed to demonstrate that claims 4-9 are obvious in view of the cited references. *See* Ex 2001 ¶ 103.

8. Claims 14, 18, 20, 22, 32, 34, 35, and 36 Are Not Obvious In View of the Cited References

Claims 14, 18, 20, 22, 32, 34, 35, and 36 are each independent and each recite (as shown below) at least one element which, as discussed above, is not disclosed, taught, or suggested in the cited art relied upon by Petitioner. *See supra* Sections VI.A.5 and 6; *see also* Ex 2001 ¶¶ 103-112. In addition, since Petitioner's arguments

regarding motivation to combine the submitted references is deficient, Petitioner's arguments against claims 14, 18, 20, 22, 32, 34, 35, and 36 must also fail. *See supra* Sections VI.A.3 and 4.

As these claims repeat substantively the same elements which differentiate claim 1 from the cited references, each of these claims can be similarly differentiated from the cited references, as discussed above with respect to claim 1. *See supra* Sections VI.A.5 and 6. As such, Petitioner has failed to show that these Challenged Claims are obvious.

9. Claim 16 Is Not Obvious In View of the Cited References

Claim 16 depends directly from independent claim 14. As discussed above, Petitioner has failed to submit adequate evidence showing a motivation to combine Ueda, the SIP Standard, and the SDP Standard, as proposed. *See supra* Sections VI.A.3 and 4. Further, and as discussed above, even if the references are combined as proposed, this combination fails to disclose each and every element of claim 14 of the '427 Patent. *See supra* Sections VI.A.5, 6, and 8.

As such, Petitioner has failed to demonstrate that claim 16 is obvious in view of the cited references. *See* Ex 2001 ¶ 113.

B. Petitioner Fails to Show Obviousness over Ueda in view of SIP Standard and Bechtolsheim (Ground 2 - Claims 1, 4-9, 14, 16, 18, 20, 22, 32, and 34-36)

1. Motivation to Combine Ueda with SIP Standard

As noted above, Petitioner has not shown that a POSA would be motivated to combine Ueda with the SIP Standard. *See supra* Section VI.A.3. As such, Petitioner’s second ground fails on this basis alone, since Petitioner relies upon this combination for a number of claim elements independent of combination with Bechtolsheim.

2. Motivation to Combine Ueda and the SIP Standard with Bechtolsheim

As with Petitioner’s proposed combination of Ueda with the SIP Standard and the SDP Standard, Petitioner’s arguments regarding combination of Ueda with the SIP Standard and Bechtolsheim are similarly insufficient, if not more so. Petitioner devotes a mere two paragraphs to describe why and how a POSA would be motivated to combine Ueda (as modified with the SIP Standard) to incorporate the features of Bechtolsheim.

According to Petitioner’s purported motivation for combining Ueda, the SIP Standard, and Bechtolsheim, a POSA would have been motivated to combine Bechtolsheim with Ueda in order to “maintain video quality and avoid requiring a higher bandwidth than available.” Petition at 24-25; Ex 1008 ¶ 111. The alleged “motivation” for this is Bechtolsheim’s statement that “[A] stream which consistently requires higher bandwidth than the configured rate may produce [] poorer quality video.” Petition at 25; Ex 1006 ¶ 0038. However, just before this

quote, and conveniently excluded by the Petitioner, Bechtolsheim also states that “[i]f this target bandwidth is too small, the import preprocessor 148 may be configured to *issue warnings and drop data* in order to meet the schedule.” *Id.* As such, contrary to Petitioner’s statement that Bechtolsheim teaches “guaranteeing this bandwidth,” Petition at 24, Bechtolsheim actually teaches the opposite: modifying the *content* to be streamed to match the bandwidth that happens to be available— no bandwidth guarantee is provided. Ex 2001 ¶ 119.

Petitioner provides a single sentence justification for combining Bechtolsheim with the SIP Standard, for the purpose of “describing multimedia sessions and timing information.” Petition at 25; *see also* Ex 1008 ¶ 112. This conclusion does not discuss an actual motivation to combine these references merely concluding that it would “provide a protocol for describing multimedia sessions and to provide timing information.” *Id.* It is unclear which reference would provide which of these features, or why a POSA would wish to incorporate any of them into the system of Ueda. *DSS Technology Management, Inc. v. Apple, Inc.*, 885 F.3d 1367 (Fed. Cir. 2018) (expert’s conclusory statement of motivation “[w]ithout a reasoned explanation that avoids conclusory generalizations’” was insufficient for purpose of IPR review) (quoting *Arendi S.A.R.L. v. Apple, Inc.*, 832 F.3d 1355, 1366 (Fed. Cir. 2016)) (internal quotations omitted); *see also Johns Manville*, IPR2018-00827, Paper 9 at 20 (P.T.A.B. Oct. 16, 2018) (Informative) (unsupported statement that it

“would have been” obvious to combine references are not adequate). As such, Petitioner has failed to put forth an actual motivation to combine, but rather, appears to have cherry picked certain elements of Bechtolsheim and stating, without more, that a POSA “would have been motivated to combine” these elements with Ueda to allegedly arrive at the claimed invention. *See In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litigation*, 676 F.3d 1063, 1071 (Fed. Cir. 2012) (rejecting defendant’s obviousness argument based on “merely throw[ing] metaphorical darts at a board” in hopes of arriving at a successful result.”) (quoting *In re Kubin*, 561 F.3d 1351, 1359 (Fed. Cir. 2009)).

Further, Petitioner fails to even *mention* whether a POSA would have a “reasonable expectation of success” in combining Bechtolsheim with Ueda and the SIP Standard.¹² *See* Ex 1008 ¶¶ 111-112 (making no mention of “likelihood of success” with respect to the proposed combination); Petition at 24-25 (same). Since Petitioner has not even *alleged* that a POSA would have a “reasonable likelihood of success” in combining the references, its argument to combine these references must fail, as well as Ground 2. *See Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367 (Fed. Cir. 2016) (“[O]ne must have a motivation to

¹² This should not be read as a concession that Petitioner’s mere mention of “likelihood of success” with respect to the combination of Ueda, the SIP Standard, and the SDP Standard is sufficient – merely that Petitioner at least mentioned the standard for those references.

combine *accompanied by a reasonable expectation of achieving* what is claimed in the patent-at-issue.”) (emphasis added); *see also TQ Delta, LLC v. CISCO Sys., Inc.*, 942 F.3d 1352, 1357 (Fed. Cir. 2019) (“Obviousness is a question of law based on multiple underlying factual determinations, including . . . whether there would have been a reasonable expectation of success in doing so.”) (quoting *In re Warsaw Orthopedic, Inc.*, 832 F.3d 1327, 1333 (Fed. Cir. 2016)).

3. [’427 Claim 1] SIP Standard does not teach “the one or more connection control servers executes a process for guaranteeing a communication bandwidth required for transmitting content data as a process for establishing the connection” (claim element [1g-1])

As discussed above, the SIP Standard fails to teach “the one or more connection control servers executes a process for guaranteeing a communication bandwidth required for transmitting content data as a process for establishing the connection. *See supra* Section VI.A.5; *see also* Ex 2001 ¶ 123. As such, Petitioner’s second ground fails.

4. [’427 Claim 1] Bechtolsheim does not teach “at a same time that the one or more connection control servers executes a process for guaranteeing a communication bandwidth required for transmitting content data as a process for establishing the connection” (claim element [1g-2])

As noted with respect to the SDP Standard, Petitioner has excluded the second portion of this claim term, “transmit the play-list information via the one or more connection control servers to the user equipment which has transmitted the content

delivery request.” Regardless, Petitioner’s argument fails to show that Bechtolsheim discloses this process.

Petitioner admits that Bechtolsheim does not teach executing a process for guaranteeing a communication bandwidth *at a same time* that play-list information is transmitted to the user device. Petitioner does not even allege that Bechtolsheim executes these processes at a same time. Rather, Petitioner alleges that Bechtolsheim discloses “[a]t the same time that the playlist *is put together*, stream system 130 executes a process for guaranteeing a communication bandwidth for transmitting content data.” Petition at 141 (emphasis added); Ex 1008 ¶ 306. This language is then repeated later in the Petition. *Id.* (“The bandwidth requirements for each segment of content data thus are determined at the same time that the playlist is *prepared* by the steam [sic] system 130.”). *Id.* ¶¶ 97, 307. The plain language of Petitioner’s argument shows that the alleged bandwidth guarantee process of Bechtolsheim does not occur at a same time as transmission of play-list information, but rather, occurs (if at all), while the play-list information is being prepared. As such, Petitioner has failed to even plausibly allege that Bechtolsheim discloses this element, since the plain language of Bechtolsheim does not contemplate performing the “bandwidth” *determination* process while the play-list is transmitted. Ex 2001 ¶ 125.

Bechtolsheim also fails to disclose “a process for guaranteeing a communication bandwidth required for transmitting content as a process for establishing the connection” as recited in the Challenged Claims. Ex 2001 ¶126. As discussed previously with respect to Petitioner’s proffered motivations to combine, *see supra* Section VI.B.2, Bechtolsheim does not teach a bandwidth “guarantee” process. Bechtolsheim teaches a mechanism whereby, rather than guaranteeing a required bandwidth, it is “configured to issue warnings *and* drop data” “[i]f the target bandwidth is too small.” Ex 1006 ¶ 0038. This is directly in contrast with a bandwidth guarantee process—Bechtolsheim instead modifies the content being streamed (and selectively dropping certain data frames) exactly *because* it is unable to ensure a particular bandwidth will be sufficient. Ex 2001 ¶ 126.

Petitioner cites to Bechtolsheim’s disclosure that “[a] stream specifies the delivery endpoint for the content and represents the reservation of bandwidth and streaming capacity of the switch unit 135.” Ex 1005 ¶ 0049; *see* Ex 1008 ¶ 308. However, when viewed in proper context, this sentence does not refer to any process for “guaranteeing” a bandwidth, but rather, just indicates that information about available bandwidth (and streaming capacity) is *stored at* the switch unit 135. *See* Ex 1005 ¶ 0049; *see also* Ex 2001 ¶ 127. This is consistent with other disclosures of Bechtolsheim that describe, consistent with Petitioner’s cited portions, that Bechtolsheim can indicate, store, and transmit “bandwidth requirements,” but it does

not suggest that Bechtolsheim is executing any process for guaranteeing a particular bandwidth. Ex 2001 ¶ 127. Rather, the “metadata” of Bechtolsheim simply acts as storage for how much bandwidth a particular set of content will need—nothing guarantees, or reserves, that a receiver will have sufficient bandwidth to transmit/receive the content at that data rate. *Id.*

5. Claims 4-9 Are Not Obvious in View of the Cited References

Each of claims 4-9 depend, directly, from claim 1 of the '427 Patent. As discussed above, Petitioner has failed to submit adequate evidence showing a motivation to combine Ueda, the SIP Standard, and Bechtolsheim, as proposed. *See supra* Sections VI.B.1 and 2. Further, even if the references are combined as proposed, this combination fails to disclose each and every element of claim 1 of the '427 Patent. *See supra* Sections VI.B.3 and 4.

As such, Petitioner has failed to demonstrate that claims 4-9 are obvious in view of the cited references. Ex 2001 ¶¶ 128-29.

6. Claims 14, 18, 20, 22, 32, and 34-36 Are Not Obvious In View of the Cited References

As discussed above, each of claims 14, 18, 20, 22, 32, and 34-36 recite, in substantively the same forms, elements which also appear in claim 1 which differentiate them from the cited references, Ueda, the SIP Standard, and

Bechtolsheim. *See supra* Sections VI.A.8 and VI.B.3 and 4. As such, these claims are not obvious in view of Petitioner's cited references. Ex 2001 ¶¶ 130.

7. Claim 16 Is Not Obvious In View of the Cited References

Claim 16 depends directly from independent claim 14. As discussed above, Petitioner has failed to submit adequate evidence showing a motivation to combine Ueda, the SIP Standard, and Bechtolsheim, as proposed. *See supra* Sections VI.B.1 and 2. Further, and as discussed above, even if the references are combined as proposed, this combination fails to disclose each and every element of claim 14 of the '427 Patent. *See supra* Sections VI.A.8 and VI.B.3 and 4.

As such, Petitioner has failed to demonstrate that claim 16 is obvious in view of the cited references. *See* Ex 2001 ¶ 113.

C. Petitioner Fails to Show Obviousness over Ueda in view of SIP Standard, SDP Standard, and Cohee (Ground 3 – Claims 2, 3, 15, and 17)

Petitioner as Ground 3 of its Petition alleges that claims 2, 3, 15, and 17 which depend from claims 1 and 14, are obvious in view of Ueda, combined with the SIP Standard, the SDP Standard, and U.S. Patent Application Publication No. 2010/0010884 ("Cohee"), Ex 1007. *See* Petition at 77.¹³

¹³ Though Petitioner has combined this and Ground 4 into a single section, for clarity, Patent Owner has separated it into two grounds.

As discussed above, Petitioner has already failed to put forth sufficient evidence of a motivation to combine Ueda with the SIP Standard and the SDP Standard. Even assuming that Petitioner has put forth sufficient motivation to combine these references, the references still fail to disclose each and every element of claims 1 and 14. As such, claims 2, 3, 15, and 17 are not obvious in view of the Petitioner's cited reference at least for their dependence from valid claims 1 and 14.

As discussed further below, Petitioner has failed to show that Cohee would be combined with any of the references. Ex 2001 ¶¶ 131-33.

1. No Motivation to Combine Ueda and the SIP Standard and the SDP Standard with Cohee

As with both the SIP Standard, the SDP Standard, and Bechtolsheim, Petitioner presents only a cursory and conclusory justification for combining Cohee with Ueda, and notably, provides no explanation for why or how Cohee would be combined with the SIP Standard or the SDP Standard, as alleged. See Petition at 25 (describing *only* a motivation to combine Ueda with Cohee); Ex 1008 ¶ 113 (same). In fact, Petitioner provided even less explanation of its proposed combination with Cohee than it does with any reference, and only discusses motivation to combine Cohee with Ueda, not the SIP Standard or the SDP Standard.

As a result, Petitioner's argument to combine Cohee and Ueda is severely lacking. Ex 2001 ¶ 138. Relying on a single paragraph from its expert, Petitioner

argues that a POSA would have been motivated to combine Cohee with Ueda “to make it possible for media clips to reside at any location, including a remote server on the internet.” Petition at 25; Ex 1008 ¶ 113. But Petitioner fails to provide a non-hindsight-based reason why a POSA would desire this at all, much less in the combination involving Ueda. Ex 2001 ¶ 138.

Ueda relies upon a disc that points to a single URL, at the server, to determine whether there exists new content to download in response to a user request. Ex 2001 ¶ 139. As noted previously, there are two circumstances, contemplated by Ueda, which can occur at the server in response to a user request:

- “[W]herein the server holds no new commercial content to be provided to the user, the processing is ended.” Ex 1003 ¶ 0230.
- “[W]herein the server holds a new commercial content to be provided to the user, in step S285 the server transmits the latest commercial content to the content providing device on the user side.” *Id.*

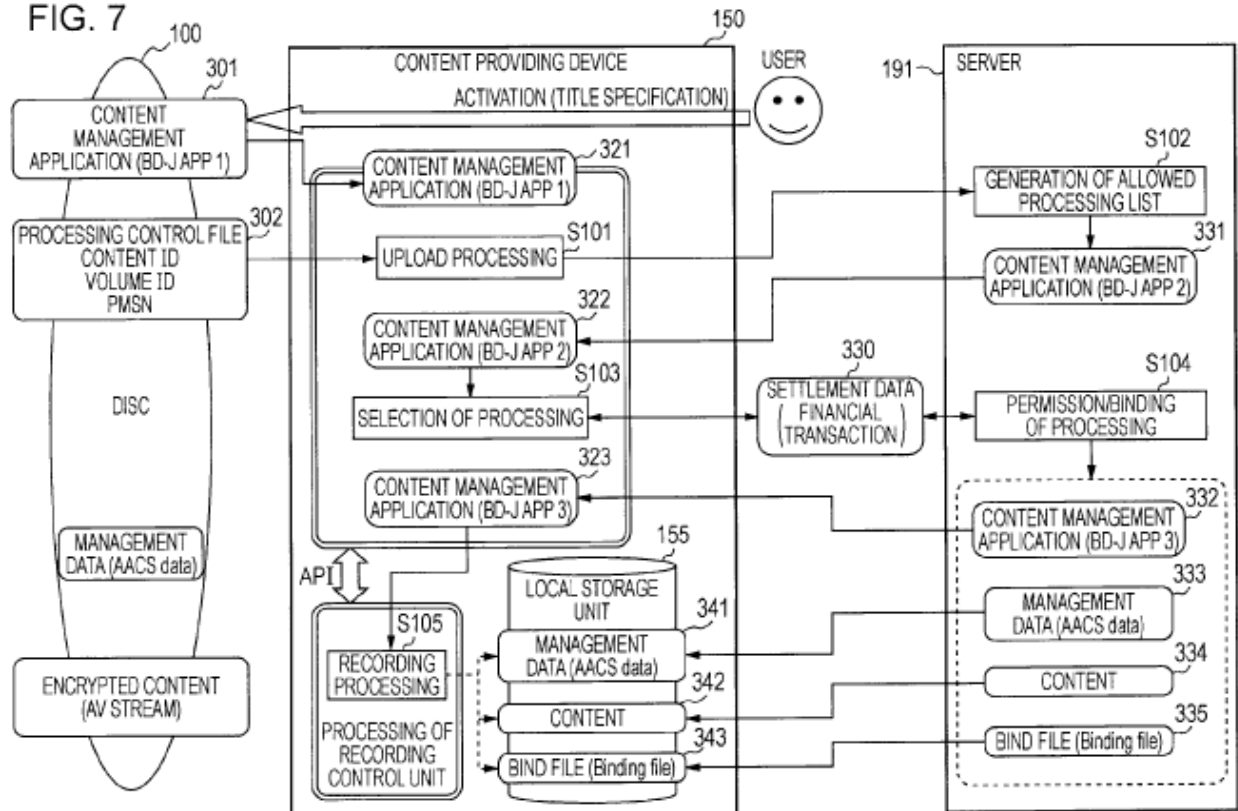
Petitioner and its expert do not even attempt to reconcile this process of Ueda with Cohee and gives no explanation for how or why a POSA would be motivated to significantly modify Ueda to incorporate such an unrelated feature. Ex 2001 ¶ 140. Petitioner attempts to circumvent this teaching of Ueda by stating that Cohee teaches “[b]ecause the playlist contains a reference to each media clip . . . it is possible for a media clip to reside at any location on the Internet accessible by a

URL.” Ex 1008 ¶ 113. But it is not clear how such a circumstance relates to the system of Ueda, which contemplates a single URL that contains information on whether or not a sub content should be transmitted. Ex 2001 ¶ 140.

Petitioner’s other proposed “motivations” are similarly unavailing. Petitioner alleges that a POSA would, alternatively, be motivated to combine Ueda with Cohee in order to “reduc[e] dedication of end-user equipment local storage resources for storing main content and sub content, and reducing privacy risks for content providers that could occur by permitting local storage of content.” Petition at 25; Ex 1008 ¶ 113. Petitioner’s expert offers no further explanation or justification for this modification. *Id.*

Petitioner’s argument about “end-user equipment local storage resources” and “permitting local storage of content” is in contrast with Ueda’s provision (as shown in Figure 7, reproduced below) for directly downloading both main and sub content to a “local storage unit 155” before playback. Ex 2001 ¶¶ 141-42

FIG. 7



Ueda actually highlights that “[i]t is indispensable to obtain a content from the server *before* the content playback processing employing a disc stored content and a local storage unit stored content is performed.” Ex 1003 ¶ 0121 (emphasis added). Petitioner neither considers nor addresses why a POSA would be motivated to go against this explicit teaching of Ueda in order to, as Petitioner claims, “reduce dedication of end-user equipment local storage resources.” Ex 1008 ¶ 113; *see also* Ex 2001 ¶ 143.

As such, Petitioner’s conclusory statement that a POSA would be motivated to combine these disparate references (despite teaching within Ueda to the contrary) should be dismissed.

But even further, and as with Bechtolsheim, Petitioner has also completely failed to even *allege* that a POSA would have a “reasonable likelihood of success” in combining Cohee and Ueda, especially in view of Ueda’s explicit teachings *against* the system according to Cohee. *See* Ex 1008 ¶ 113; Petition at 25 (neither making any mention of a POSA’s likelihood of success in combining Ueda with Cohee). Since Petitioner has not even *alleged* that a POSA would have a “reasonable likelihood of success” in combining the references, its argument to combine these references must fail, as well as Ground 3 (and Ground 4). *See Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367 (Fed. Cir. 2016) (“[O]ne must have a motivation to combine *accompanied by a reasonable expectation of achieving* what is claimed in the patent-at-issue.”) (emphasis added); *see also TQ Delta, LLC v. CISCO Sys., Inc.*, 942 F.3d 1352, 1357 (Fed. Cir. 2019) (“Obviousness is a question of law based on multiple underlying factual determinations, including . . . whether there would have been a reasonable expectation of success in doing so.”) (quoting *In re Warsaw Orthopedic, Inc.*, 832 F.3d 1327, 1333 (Fed. Cir. 2016)).

2. Claims 2, 3, 15, and 17 Are Not Obvious in View of the Cited References

Claims 2, 3, 15, and 17 depend from claims 1 and 14 of the '427 Patent. As discussed above, Petitioner has failed to submit adequate evidence showing a motivation to combine Ueda, the SIP Standard, the SDP Standard, and Cohee as proposed. *See supra* Sections VI.A.3 and 4. Further, and as discussed above, even if the references are combined as proposed, this combination fails to disclose each and every element of claims 1 and 14 of the '427 Patent. *See supra* Sections VI.A.5, 6, and 8.

As such, Petitioner's Ground 3 must fail. *See* Ex 2001 ¶¶ 144-49.

D. Petitioner Fails to Show Obviousness over Ueda in view of SIP Standard, Bechtolsheim, and Cohee (Ground 4 – Claims 2, 3, 15, and 17)

1. No Motivation to Combine Ueda and the SIP Standard and Bechtolsheim with Cohee

Petitioner provides no motivation to combine Cohee with the Bechtolsheim. *See* Petition at 47. As such, Petitioner's proposed motivation to combine fails equally with respect to Bechtolsheim as it does with the SDP Standard. Petitioner has failed to put forth sufficient evidence showing a motivation to combine Cohee with Ueda as proposed. Further, Petitioner has failed to even allege that a POSA would have a reasonable likelihood of success in combining these references. *See supra* Section VI.C.1. Petitioner makes no explanation of why, or how, a POSA would be

motivated to combine Cohee with either the SIP Standard or Bechtolsheim and does not provide any statement regarding a POSA's likelihood of success in combining these references.

2. Claims 2, 3, 15, and 17 Are Not Obvious in View of the Cited References

Claims 2, 3, 15, and 17 depend from claims 1 and 14 of the '427 Patent. As discussed above, Petitioner has failed to submit adequate evidence showing a motivation to combine Ueda, the SIP Standard, Bechtolsheim, and Cohee as proposed. *See supra* Sections VI.B.1, 2 and 4, and VI.C.1. Further, and as discussed above, even if the references are combined as proposed, this combination fails to disclose each and every element of claims 1 and 14 of the '427 Patent. *See supra* Sections VI.A.3, 4, and 6.

As such, Petitioner's Ground 4 must fail. *See* Ex 2001 ¶¶ 150-52.

VII. CONCLUSION

For the reasons set forth herein, the petition should be denied.

Date: November 9, 2023

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that the foregoing Patent Owner Preliminary Response, exclusive of the exempted portions as provided in 37 C.F.R. § 42.24(a), contains no more than 14,000 words and therefore complies with the type-volume limitations of 37 C.F.R. § 42.24(b).

Date: November 9, 2023

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6(e) and 42.105(a), this is to certify that I caused to be served a true and correct copy of the foregoing “PATENT OWNER’S PRELIMINARY RESPONSE” and Exhibits 2001-2006 thereto via the PTAB’s E2E system and sent via email as detailed below.

Date of service: November 9, 2023

Documents served: PATENT OWNER’S PRELIMINARY RESPONSE

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