

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'S 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)
2007	Notice of Allowance
2008	Oxford Dictionary Definition
2009	<i>Masahiro Miyasaka, Noritaka Horkome, and Koji Kishida</i> , Bandwidth Management and Control Technology in the NGN (July 2009)
2010	Supplemental Declaration of Dr. Jeremy R. Cooperstock
2011	Declaration of Inventor Kunihiro Taniguchi
2012	Presentation dated August 6, 2008 by inventor
2013	Certified English Translation of Ex[2012]
2014	Metadata of Ex[2012]
2015	English translation of Ex[2014]
2016	Draft Specification of Nov. 6, 2008 Prepared by Inventor Taniguchi
2017	Certified English Translation of Ex[2016]
2018	Patent Owner Work Request to Baba International of Nov. 6, 2008
2019	Certified English Translation of Ex[2018]
2020	Specification of JP2008-294270, as filed on Nov. 18, 2008
2021	Certified English Translation of Ex[2020]
2022	Declaration of Shunsuke Chishiro
2023	Declaration of Motohiro Baba
2024	GMI 2008 Xc Implementation Agreement between UE and Video Media Server (SS-MCF) (MSF-IA-RTSP.001-FINAL), Aug. 25, 2008, available from the CiteSeerX scientific digital library of The Pennsylvania State University at https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=1d360c021e838cd1fd073facbc72c1689551a084
2025	NEC press release dated December 3, 2008, available at http://www.nec.co.jp/press/ja/0812/0301.html
2026	Certified translation of Ex[2025]
2027	Table of Contents of Information Processing Society of Japan (IPSJ) Magazine, November 2008 issue, available at https://ipsj.ixsq.nii.ac.jp/ej/?action=repository_uri&item_id=62939&file_id=1&file_no=1

2028	Comparison of Specification of '427 Patent and corresponding segments of Ex[2021] (English translation of Ex[2020], the JP'270 priority application)
2029	Transcript of Deposition of Clifford Reader, PhD (Apr. 19, 2024)
2030	J.D. Day & H. Zummermann, <i>The OSI Reference Model</i> , 71(12) Proceedings of the IEEE 1334-1340 (1983)
2031	Merriam Webster Dictionary Definition
2032	Default Protective Order

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STATUTES

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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. Patent Owner opposes each of the Grounds of Petitioner’s challenge as failing to render the Challenged Claims obvious.

II. THE CHALLENGED PATENT (’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. 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

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

² As explained below, the ’427 Patent is entitled to an earlier priority date of at least August 6, 2008. *See infra* Section VIII.A.

for the main content and the sub content and identifies the sequence in which the main and sub content are to be output. *Id.* at 18:63-19:6.

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 that the bandwidth required for the transmission is available during transmission. *See, e.g., id.* at Fig. 5. 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 process in place to guarantee that bandwidth would be reserved and available. Ex[1005] at 5.

During prosecution of the '427 Patent, Patent Owner argued that “the present system can perform the process of establishing a connection and transmitting playlist 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 configuration provides for improved latency, and reduction in the overall resource overhead costs incurred in order to both (1) establish the communication session and (2) determine the data to be transmitted

between devices. Such a reduction in latency and resource consumption improves the user's 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. Ex[1001] at 18:30-63. 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

For the purpose of the current proceeding, Patent Owner does not dispute the definition of a Person of Ordinary Skill in the Art which has been presented by Petitioner. Ex[2001] ¶22.

IV. CLAIM CONSTRUCTION

Petitioner has proposed three terms for construction in its Petition.

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. In its Institution Decision, the Board agreed, based on the preliminary evidence, that the term should be given its “ordinary and customary meaning,” and declined to construe the term. Paper 16 at 17. 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.

Petitioner’s contention that “[t]he specification does not elaborate further on what is meant by ‘a process to guarantee a communication bandwidth,’” simply ignores the relevant portion of the specification. Petition at 10. Contrary to

Petitioner’s assertion that the bandwidth guarantee process would be a “standard” SIP message, the ’427 Patent explicitly differentiates between the standard SIP messages (such as the “OK message” relied upon by Petitioner (Petition at 10)) and the claimed “bandwidth guarantee process.” Ex[2001] ¶44. 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 the bandwidth guarantee process. *Id.*

The specification says the following about the “bandwidth guarantee process”:

the core IMS part 30 transmits, to the transport functions part 80, the received communication bandwidth 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 15:29-40.³ 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] ¶45. In fact, this description illustrates that the “transport functions” are responsible for the bandwidth guarantee process—a function which the SIP Standard is explicitly

³ Emphasis supplied throughout, unless noted.

incapable of performing because *the SIP Standard is not a transport function, but works “independent[] of the underlying transport protocols.”* See Ex[1004] at 9 (emphasis added); *id.* at 1 (“SIP runs on top of several different transport protocols”).

Petitioner’s construction is therefore incorrect as it would exclude this embodiment specifically identified by the patent and improperly narrow the terms. See *Thorner v. Sony Computer Ent. 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.”).

In its decision granting Institution of the present Petition, the Board invited the parties “to elaborate at trial on their positions as to the meaning of this term.” Paper 16 at 20. Patent Owner maintains its position that the term be accorded its plain and ordinary meaning as explained above, which would, at least, specifically exclude “a standard process performed by SIP servers using SIP messages.”

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

Petitioner 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 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.

Ex[1001] at 19:13-18. Thus, the specification makes clear that play-list information transmission and connection establishment, proceed “at a same time” as one another.⁴ 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 time that the one or more connection control servers executes a process for establishing the connection. Ex[1002] at 72-73.

⁴ Petitioner suggests that the claims require 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. Ex[2001] ¶52; *see also* Ex[1002] at 72-73.

Further, and as with the “bandwidth guarantee process” term, Petitioner itself has not actually proposed a construction to resolve this purported deficiency. 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.

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. The Board in its institution decision agreed with Patent Owner’s proposal, and agrees that the term “only requires the play-list information to be sent ‘at a same time’ that the connection is established.” Paper 16 at 21.

V. PETITIONER FAILS TO SHOW THAT CLAIMS CHALLENGED IN THE PETITION ARE UNPATENTABLE

A. Ueda is not prior art to the ’427 Patent

Peloton relies upon Ueda for all of its Grounds under pre-AIA 35 U.S.C. § 102(e), based on Ueda’s filing date of September 19, 2008. However, Ueda is not prior art because, as detailed below, the inventors of the ’427 Patent conceived of the invention on or before August 6, 2008, and worked diligently to reduce the invention to practice with the filing of Japan Patent Application No. 2008-294270 (“JP’270 Application”) on November 11, 2008, the ’427 Patent’s foreign priority document. Thus, the date of invention of the ’427 Patent predates the U.S. filing date of Ueda, meaning Petitioner cannot show that Ueda was filed in the United States

“before the invention” of the ’427 Patent, 35 U.S.C. § 102(e) (pre-AIA). *Price v. Symsek*, 988 F.2d 1187, 1190 (Fed. Cir. 1993).

1. Conception

By early August 2008, inventors of the ’427 Patent conceived of the inventions therein, and reduced a complete formulation of the invention to writing in a presentation dated August 6, 2008 (“Conception Presentation”). Ex[2011] ¶10; Ex[2012]. This date of conception is independently corroborated by the metadata of the Presentation, which shows a last modification at 21:38:38 on August 5, 2008. Ex[2011] ¶10; Exs[2014], [2015]. *Unified Pats., LLC v. Flexiworld Techs., Inc.*, IPR2022-00775, Paper 41 at 16 (P.T.A.B. Nov. 1, 2023) (“Because Exhibit 2013, itself, embodies the conception of claims 27 and 28, the metadata associated with Exhibit 2013 stands on its own as evidence of the conception date, and needs no further corroboration.”).

A certified translation of the Presentation is provided as Exhibit 2013. A chart showing where each element of claim 1 of the ’427 Patent is present in the Conception Presentation is below. Ex[2010] ¶18.

Text	Relevant slides in Ex[2013]
1. A content delivery system comprising an application server system and one or more connection control servers,	3, 9, 18

the one or more connection control servers being configured to receive equipment specification information transmitted by a user equipment and	3, 9, 12, 21
establish a connection between the application server system and the user equipment	10, 11
based on the received equipment specification information,	10, 11
the application server system comprising: a memory for storing sub content data representing sub content and main content data representing main content;	3, 9, 18
a first receiver for receiving a content delivery request transmitted by the user equipment and	6, 10 and all subsequent "working example" slides
containing main content identification information for identifying the main content;	7, 10, 11, 12
a processor for selecting the stored sub content data based on selection information containing attribute information representing an attribute of the sub content; and	3, 7, 8, 15, 18, 24
a first transmitter for transmitting selected sub content specification information for specifying the selected sub content data via the one or more connection control servers to the user equipment which has transmitted the content delivery request, wherein the first transmitter is configured to,	3, 9, 10, 11

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,	10, 11, 13, 14, 16, 17, 19, 20, 22, 23, 25, 26
transmit the play-list information via the one or more connection control servers to the user equipment which has transmitted the content delivery request,	9, 10, 11
the play-list information being information containing the main content identification information contained in the content delivery request and the selected sub content specification information,	7, 10, 11, 12, 15
and the play-list information being information containing 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,	8, 15
wherein the user equipment comprises a second receiver for receiving main content data and sub content data transmitted by the application server system and .	10, 11, 13, 19
output, based on the received main content data and sub content data, viewing content in which sub content represented by the sub content data is inserted in main content represented by the main content data.	14, 15, 28

Since each of the independent claims of the '427 Patent recite largely similar subject matter, including the key elements identified by the Patent Owner during prosecution of the '427 Patent, Ex[1002] at 72-73, and thus the elements of each of claims 14, 18, 20, 22, 32, and 34-36 are present in the Presentation, Ex[2013], as set forth above with respect to independent claim 1, and thus Ueda is not valid prior art against any of these Challenged Claims. Ex[2010] ¶19.

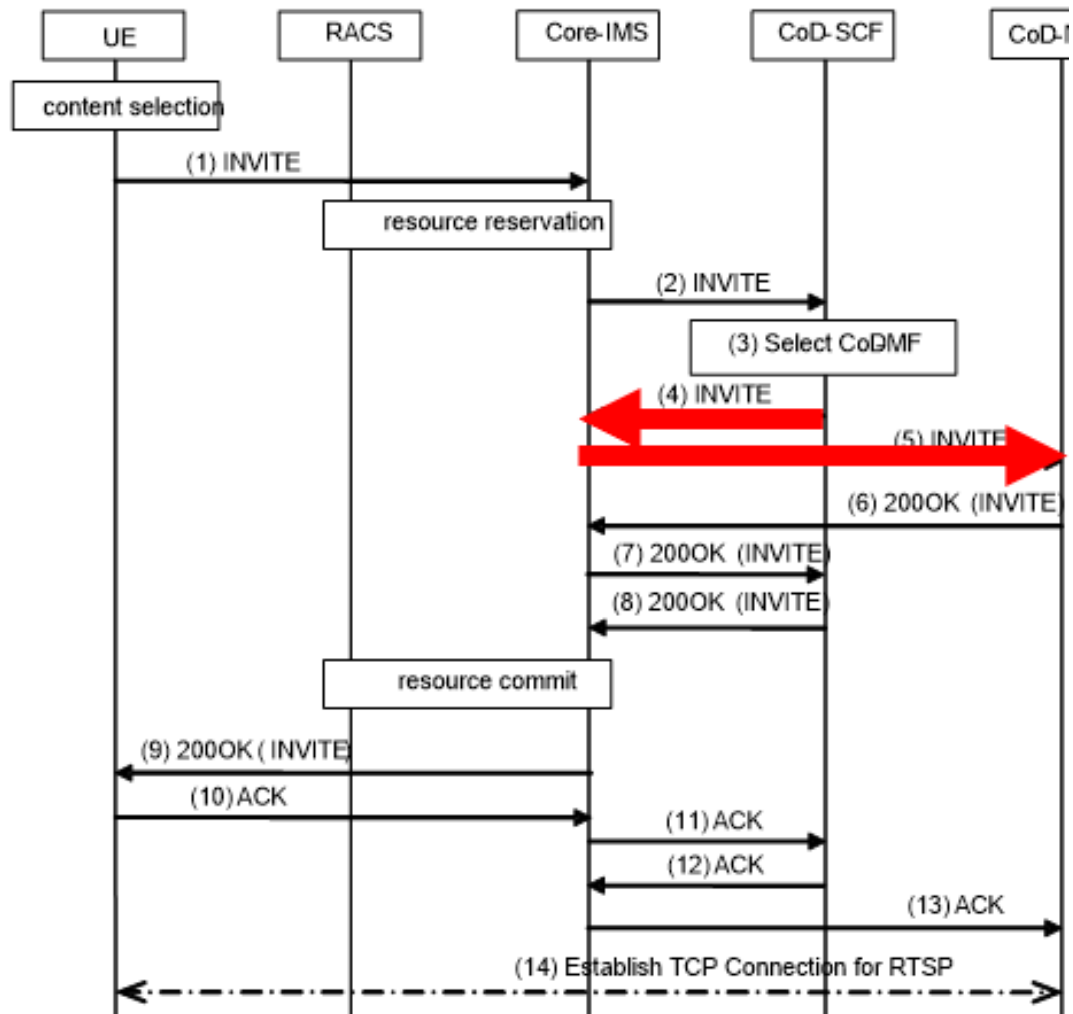
Additionally, dependent claims 2-9 and 15-17 contain elements which are similarly set forth in the Presentation already or would have been obvious to a POSA at the time of invention. The below table sets for the each of these dependent claims, and its corresponding disclosure either within the Presentation, or as obvious in view of the knowledge of a POSA. Ex[2010] ¶20.

Claim	Source
2	Ex 2013 at 18, 19, 22, 25. Knowledge of a POSA. <i>See</i> Ex[2010] ¶21.
3	Ex 2013 at 10, 13, 16, 19, 22, and 25 Knowledge of a POSA. <i>See</i> Ex[2010] ¶21.
4	Ex 2013 at 30. Knowledge of a POSA. <i>See</i> Ex[2010] ¶21.
5	Ex 2013 at 30. Knowledge of a POSA. <i>See</i> Ex[2010] ¶21.
6	Ex 2013 at 8, 14, 16, 17, 21. Knowledge of a POSA. <i>See</i> Ex[2010] ¶21.

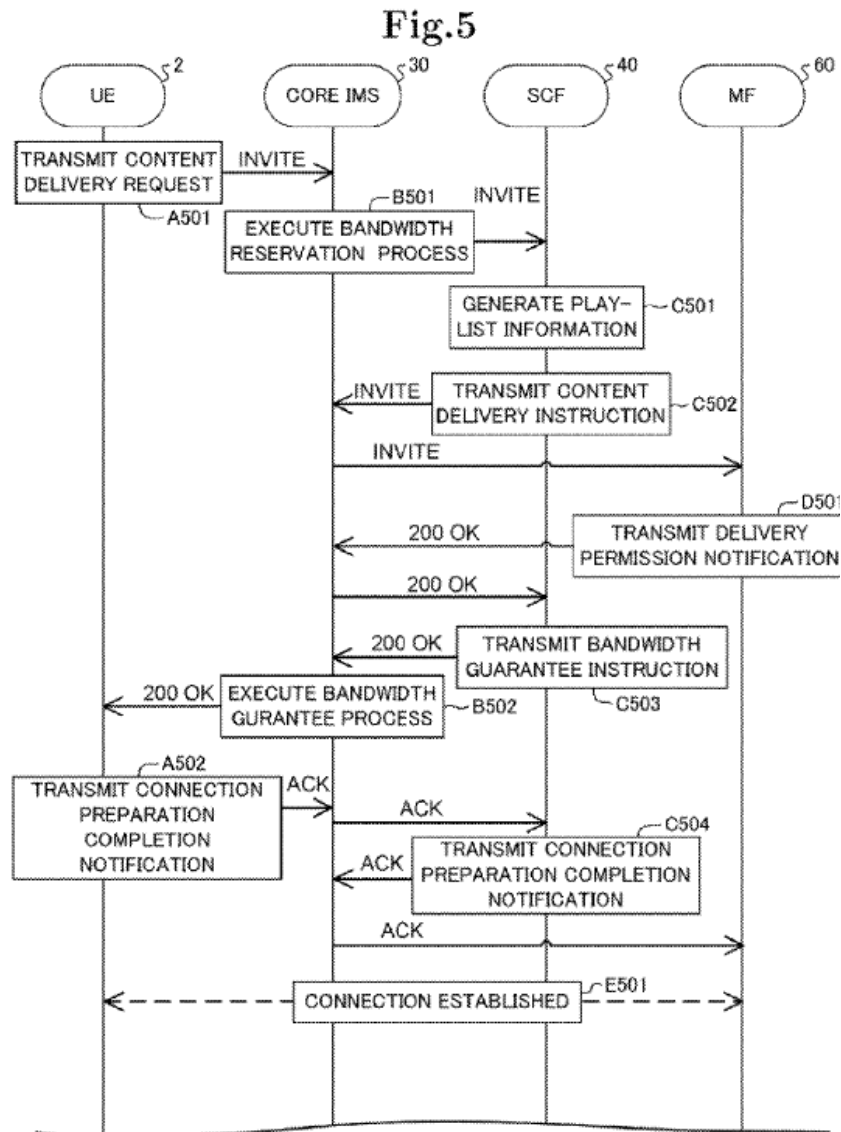
7	Ex 2013 at 3, 9, 18, 27. Knowledge of a POSA. <i>See</i> Ex[2010] ¶21
8	Ex 2013 at 9 and 18. Knowledge of a POSITA. <i>See</i> Ex[2010] ¶21.
9	Ex 2013 at 2. Knowledge of a POSA. <i>See</i> Ex[2010] ¶21
15	Ex 2013 at 18, 19, 22, 25. Knowledge of a POSA. <i>See</i> Ex[2010] ¶21.
16	Ex 2013 at Ex 2013 at 10, 11, 13, 14, 15, 18, 19, 22, 25, 28. Knowledge of a POSA. <i>See</i> Ex[2010] ¶21
17	Ex 2013 at 10, 13, 16, 19, 22, and 25. Knowledge of a POSITA. <i>See</i> Ex[2010] ¶21.

The invention of the '427 Patent is further evidenced by the clear similarity between figures that were included within the '427 Patent itself and similar figures included in the Presentation. To illustrate this, certain figures are reproduced from both materials below, and correspond with the slides indicated in the above chart.

For example, Slide 11 of the Presentation (labelled as Example B1), Ex[2013] illustrates substantially identical steps, though certain terminology has changed between the two documents.



Ex[2013] at 11.



'427 Patent at Figure 5.

Similarly, the Presentation contemplates (on Slide 24) the use of priority information to provide ad guidance (related to the “sub content” of the '427 Patent), and provides an example which is nearly identical to Figure 3 of the '427 Patent, as reproduced below.

- Car:1
- Real Estate:2
- Travel:4
- Insurance:5
- Mobile phone:3
- Coffee:3
- Gadget:4

Ex[2013] at 24.

ADVERTISEMENT ATTRIBUTE INFORMATION	PRIORITY INFORMATION
CAR	1
REAL ESTATE	2
TRAVEL	4
INSURANCE	5
CELL-PHONE	3
COFFEE	3
GADGET	4
⋮	⋮

'427 Patent at Fig. 3.

These figures are provided as examples, but various similar examples coexist between the two materials. *Compare* Ex[2013] at 12, 21 *with* '427 Patent at Figs. 7, 8, 9, 10, 11; *compare* Ex[2013] at 9, 18, 27 *with* '427 Patent at Figs. 1, 2.

2. Constructive Reduction to Practice

“A reduction to practice can be ... a constructive reduction to practice, which occurs when a patent application is filed” *Cooper v. Goldfarb*, 154 F.3d 1321, 1327 (Fed. Cir. 1998)). The '427 Patent claims priority to PCT/JP2009/006140, which in turn claims priority to the JP'270 Application. Ex[1002] at 1115. The primary inventor, Mr. Taniguchi, diligently reduced the August 6, 2008 conception to practice reasonably continuously until the filing of the JP'270 Application on November 18, 2008.

Shortly after conception, Mr. Taniguchi began, in mid-August 2008, to draft a technical specification document setting out additional background and implementation details, including those already well known in the industry. Ex[2011] ¶12. Between late August and the beginning of November 2008, he continued to draft and revise the specification document while fulfilling other full-time responsibilities at NEC, including additional or related research projects for IPTV. Such research projects and analyses related to IPTV standardization, and participation in industry association activities related to IPTV. Ex[2011] ¶¶6, 13-14. These activities are corroborated by publications and reports. For example, in the

months leading up to November 2008, Mr. Taniguchi co-authored a paper entitled “IPTV Service Trend from Standardization View and IPTV Service Enabled Technologies” which was published in the November 2008 issue of the Information Processing Society of Japan (IPSJ) Magazine. Ex[2027] at 1, 2. Further, during the relevant period in 2008, Mr. Taniguchi was deeply involved in activities of the MultiService Forum (“MSF”), an international industry organization on interoperability. Ex[2011] ¶6. Mr. Taniguchi was one of the two editors for MSF’s GMI 2008 Xc Implementation Agreement between UE and Video Media Server, Ex[2024] at 2, and received an award from MSF for his outstanding contribution in the GMI interoperability testing, which occurred between October 20 and 31, 2008, in which NEC was involved. Exs[2025], [2026]. NEC’s press release also confirmed that Mr. Taniguchi’s involvement was in his capacity as an NEC employee and on behalf of NEC. Ex[2026] (“NEC’s Kunihiro Taniguchi and Tetsuo Inoue received the MSF’s ‘Circle of Excellence Award’ . . . and this is the first time NEC has received this award.”).

Despite his other responsibilities, Mr. Taniguchi diligently worked on the draft of the technical specification for the ’427 Patent, and completed a draft about two months later, on November 6, 2008 (“Inventor Draft”). Ex[2011] ¶¶14-15; Ex[2016]. The Inventor Draft was transmitted to NEC’s patent attorneys at Baba International Patent Office (“Baba”), on the same day. Ex[2023] ¶4. These are

independently corroborated by records of NEC’s patent information management systems, UNIPAT and GeneSight. Ex[2022] ¶¶2-6.

Inventors and patent attorneys worked diligently toward finalizing the patent application. Ex[2011] ¶16; Ex[2023] ¶¶5-6. NEC’s instructions required such diligence—the work request transmitted to Baba on the same day (Thursday, November 6, 2008) specifically required a first draft of the application within 10 days after the request, and instructed Baba to provide comments on specific items and “ complete the Specification so that it can be filed as soon as possible after the interviews and take care to see that it can be filed.” Exs[2018][2019]. Indeed, the work request set an interview on the following Monday (November 10), which occurred as planned and resulted in proposals for certain modifications. Ex[2011] ¶16; Ex[2023] ¶5. Baba worked diligently over the following week and filed the JP’270 Application the following Tuesday, November 18, 2008. Ex[2023] ¶6.

The JP’270 Application contains all subject matter disclosed in the ’427 Patent’s specification. Ex[2010] ¶23; Ex[2028]. A copy of the JP’270 Application, Ex[2020], along with a translation (Ex[2021]) and a chart (Ex[2028]) mapping each paragraph of ’427 Patent’s specification to the JP’270 Application, are attached.

Because Ueda is not available as prior art against the ’427 Patent, and because all of Petitioner’s Grounds rely on Ueda, Petitioner has failed to show that any of the Challenged Claims are unpatentable.

B. 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.” *Id.* at 9. The SIP Standard provides “primitives” that can be used to “implement different services,” but does not “provide services” itself. *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.

The SDP Standard can also include certain content: information about the bandwidth to be used by the session and contact information for the person “responsible for the session.” *Id.* at 5. 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 and cannot itself enforce (or guarantee) such a bandwidth.

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. *See* Petition at 3-4, 22-34; *see also* Ex[1008] ¶¶102-110. However, the Petition fails to provide a motivation to combine adequate to justify combining the references as proposed. *See Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367 (Fed. Cir. 2016) (“[O]ne must

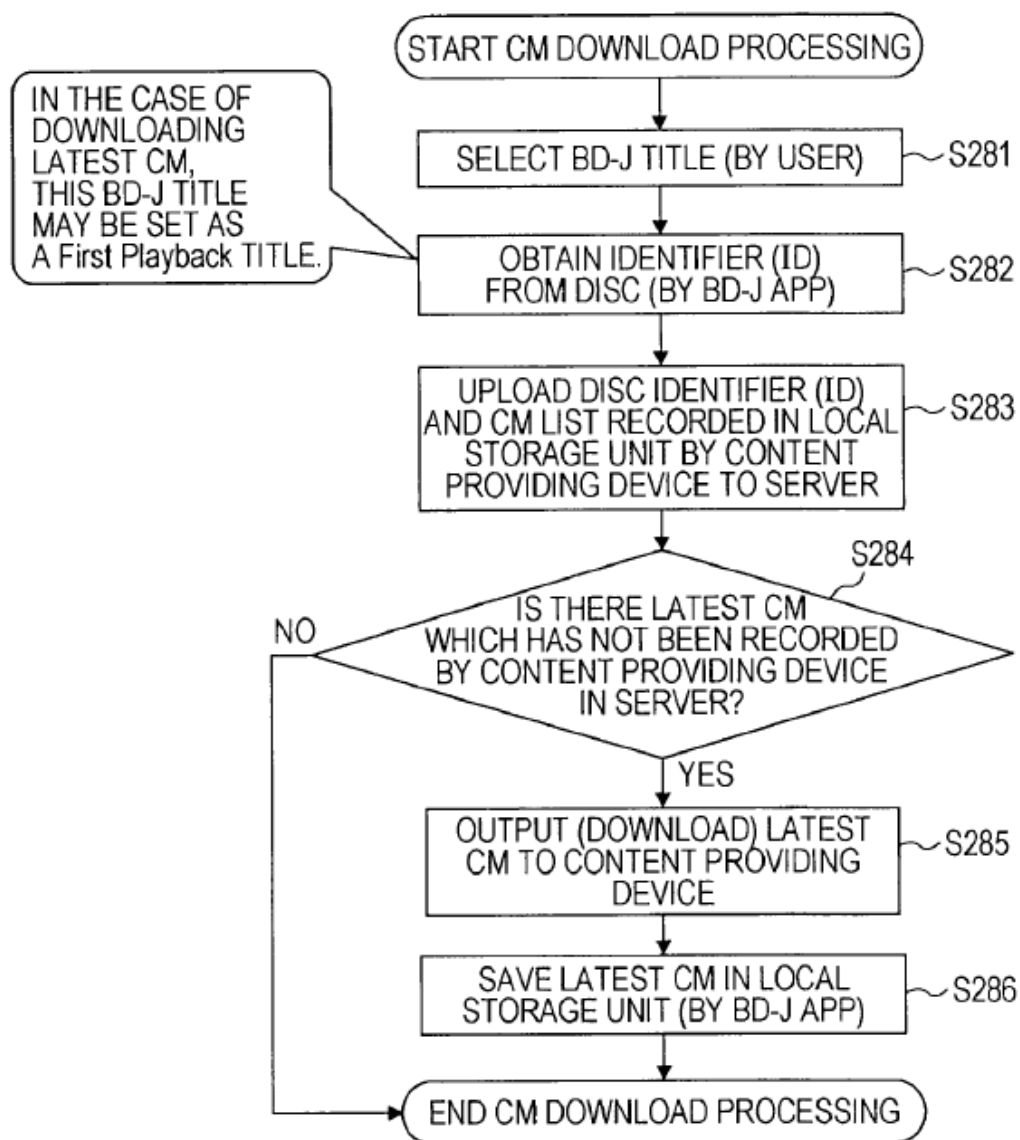
have a motivation to combine accompanied by a reasonable expectation of achieving what is claimed in the patent-at-issue.”); *see also Hulu, LLC v. Sound View Innovations, LLC*, Case IPR2018-00582, Paper 34, 22 (P.T.A.B. Aug. 5, 2019) (“[T]he fact that the combination might have been successful does 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’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] ¶¶66-67.

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. As explained in Figure 15 of 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 . . . , the processing is ended.” Ex[1003] ¶0230.
- “[W]herein the server holds a new commercial content . . . 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 already provides for such a step, and there would be no

benefit to incorporating the SIP Standard, which would only introduce incompatibilities with Ueda's existing approach. Ex[2001] ¶69.

Ueda describes the steps by which the user (content providing device 150) signals its desire to communicate with server 191. Ex[1003] ¶¶0121-0141. 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. Thus, an attempt to replace Ueda's signaling techniques with SIP would fail, a fact that Petitioner fails to address. *Id.*

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. Ex[1003] ¶¶0147-0148; Ex[2001] ¶69. 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 communication session characteristics ***into a content request***. Instead, the Petition’s contention in this regard is pure hindsight reconstruction of the inventive technique.

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. 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 transmitted to the known server, 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. Ex[1003] ¶¶0221-0230.

Accordingly, Petitioner has not identified any reason why a POSA would be motivated to include further information “characterizing the communication session.” Since Ueda already accounts for this feature, combining it with the SIP

Standard to provide the feature would be redundant, would introduce incompatibilities that would either stop Ueda from working, or would require additional redesign effort, all of which cautions against combining the references as Petitioner has proposed. Ex[2001] ¶71; *see also South-Tek Sys., LLC v. Engineered Corrosion Sols., LLC*, 748 F. App'x 1003, 1007 (Fed. Cir. 2018) (Board correctly found claims nonobvious where Petitioner proposed adding “redundant function” from a second reference that already existed in the first reference).

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. Even where user identification is employed, *see, e.g.,*

Ex[1003] at Fig. 25) authentication is already disclosed within Ueda. *Id.* ¶¶73-75; *see also* Ex[1003] ¶¶0340, 0344, 0354, 0360, 0365.

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 Corp. v. Knauf Insulation, Inc.*, IPR2018-00827, Paper 9, 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). Petitioner merely presents the conclusory statement that a POSA would have had a “reasonable expectation of success” 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). Petitioner is required to provide more than 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).

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

In Ground 1, Petitioner proposes further combining Ueda and the SIP Standard 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, Ueda already contemplates provision of such information, making combination with the SDP Standard redundant. Ex[2001] ¶80. 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,” information which is duplicative of SDP. Ex[1003] ¶0016; *see also* Ex[2001] ¶80.

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. 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. Petitioner has 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).

In the Institution Decision, the Board noted that “the preliminary evidence suggests that a person of ordinary skill in the art *would have been able to* incorporate Ueda’s media details, transport addresses, and other metadata into SIP-encapsulated SDP session descriptions without redundancy.” Paper 16 at 32 (emphasis added). However, mere ability to combine references is not the test for obviousness. *See Belden*, 805 F.3d at 1073 (“[O]bviousness concerns whether a skilled artisan ***not only could have made but would have been motivated to make*** the combinations or modifications of prior art to arrive at the claimed invention.”); *Virtek Vision ULC v. Assembly Guidance, Inc.*, 97 F.4th 882 (Fed. Cir. 2024). Regarding the redundant nature of the Petition’s combinations, the Board stated that “[t]he preliminary evidence does not suggest that this information would have been conveyed *twice* between content providing device 150 and server 191, just once in the form of SDP-containing SIP messages.” Paper 16 at 32. However, nowhere does the petition

explain how it would avoid this redundancy. *See* Pet. 24 (citing Ex[1004], 1, 10; Ex[1005], 1, 4, 5, 13 – 15; Ex[1008] ¶¶109 – 110). Indeed, in only one place does the Petition state that an existing functionality in Ueda would be replaced with a prior art disclosure, and that is related to the security/authentication feature discussed above. *See* Pet. 23.

The Petition contains no discussion or even suggestion of how the proposed combination of Ueda with SIP and SDP 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. *Cf.* 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). Further, regarding the addition of SDP, the Petitioner's expert fails to provide any details about "a reasonable expectation of success in intermediating a media session between Ueda's server 191 and the content providing device 150 of Ueda," but only giving a conclusory statement. Ex[1008] ¶107. As such, Petitioner has failed to meet its burden and Ground 1 should fail. *See Trutek Corp v. Regents of the Univ. of Michigan*, IPR2022-00674, Paper 10, 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).

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 any of these messages constitute a “process for guaranteeing a communication bandwidth.” Ex[2001] ¶¶83-86.

To the contrary the SIP Standard expressly states that following the standard **will not “provide any kind of network resource reservation capabilities.”** Ex[1004] at 10. None of the messages transmitted by the SIP Standard mandate a particular action at the receiving device. 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; Ex[2010] ¶27.

The Board’s Institution Decision reasons that Petition is not “arguing that the SIP message, themselves, constitute the recited “process for guaranteeing a communication bandwidth” but rather that “the guaranteeing process ‘involved checking that the bandwidth specific in the session description or defined by the media does not exceed the available bandwidth” and then either continuing or aborting the process for establishing the connection.” Paper 16 at 41. However, this reasoning ignores Peloton’s proposed “construction” of this term: “this process is a standard process performed by SIP servers using SIP messages.” Pet. at 10. Peloton’s own interpretation of this term *requires* that the identified SIP messages be what “execute[] a process for guaranteeing a communication bandwidth” and Peloton identifies no other protocols or functions which can perform this function. See Ex[2010] ¶25.

'Further, by the Board's reasoning the "606 Not Acceptable" or "200 OK" SIP messages simply reflect the "result" of the bandwidth guarantee process; such an argument gap filled what the Petition fails to show – what is *actually* performing that bandwidth guarantee process. If, under the Board's interpretation, the SIP messages show the *result* of the process, then it fails to explain what in the modified system proposed by Peloton is actually performing a "process for guaranteeing a bandwidth" – at best, the SIP Standard provides the result of such an unidentified process, and the Petition fails to explain where the art actually discloses executing the guarantee process. *In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d 1364, (Fed. Cir. 2016) (reversing a PTAB finding of unpatentability because the decision was based on unpatentability theories never presented by the petitioner and that were not supported by the record); *see also Zerto, Inc. v. EMC Israel Dev. Ctr., Ltd.*, IPR2013-00458, Paper 12, 18 (P.T.A.B. Jan. 16, 2014) (citing *In re Warner*, 379 F.2d 1011, 1017 (C.C.P.A. 1967)) (finding that Petitioner had failed to set forth sufficient evidence to meet its burden, the Board made clear that it would not "resort to speculation or unfounded assumptions.").

As explained, the SIP Standard itself cannot "guarantee" or, as it itself admits, even "reserve" a particular bandwidth – it functions merely as a signaling standard. Peloton's own expert admits that the SIP Standard, and in particular SIP messages according to the SIP Standard, "can't execute anything," Ex[2029] at 75:7-8 ("So

the SIP message can't execute anything. It is not a – it's just a message") – as such, it is impossible for the SIP Standard to disclose this feature as Peloton argues. Ex[2010] ¶¶26-28. A POSA would understand that, even if these SIP messages are transmitted, no bandwidth is guaranteed, and more pertinent to the claim, no "process for guaranteeing a communication bandwidth" is executed. Peloton does not submit any other reference which *actually* performs a bandwidth guarantee process, and under its own interpretation of the term "a standard process performed by SIP servers using SIP messages" *cannot* identify any other reference within its Petition which would perform this function.

Petitioner's expert states and Peloton argues, that "[t]he specification does not elaborate any further on what is meant by "a process to guarantee a communication bandwidth," indicating that the patent applicant was treating this process as a standard process performed by SIP servers using SIP messages." Ex[1008] ¶¶64; Pet. at 10. However, Peloton appears to dismiss the clear disclosure of the specification, which shows that the "bandwidth guarantee process" is specifically performed by transport functions, or at least by the transport functions part 80, separate and apart from any SIP messages which are transmitted as part of the connection process. *See* Ex[1000] at 15:29-40. Even if Peloton attempts argues that, inherently,⁵ the SIP

⁵ Peloton has not relied upon inherency or knowledge of a POSA explicitly in any of its grounds, and thus should be prohibited from importing such arguments now.

Standard teaches a “process for guaranteeing a bandwidth” through the use of relevant transport functions – an interpretation that directly contradicts its construction that the process is “a standard process performed by SIP servers *using SIP messages*,” Pet. at 10 – it fails to make such an argument in its Petition.

Peloton provides no alternative process, protocol, or reference which performs this feature. *See* Pet. at 47-49. In its argument, Peloton relies solely upon messages and responses within the SIP Standard, for examples a “2xx response” or “a 3xx, 4xx, 5xx or 6xx” response. *Id.* at 48. There is no reference to any other protocol or function which performs the bandwidth guarantee.

Finally, the Board’s Institution Decision reasons that since the ’427 Patent discloses “the core IMS part 30 executes a bandwidth reservation process *as preparation for* guaranteeing a communication bandwidth” that this reservation process must be “completed in IMS part 30 *before* the bandwidth guarantee process.” Paper 16 at 19-20. However, the Board’s reasoning is not consistent with how POSA would understand the necessary process and ignores the disclosure of the specification. The claims do not recite that the system simply guarantees a communication bandwidth, but rather, that the system “executes *a process for* guaranteeing a communication bandwidth.” ’427 Patent at 37:15-16. This implies, and a POSA would understand, the process to encompass more than the actual bandwidth guarantee step, but also steps necessary for that to occur – which would

include a bandwidth reservation step. As a result, since the SIP Standard itself discloses that it cannot and does not perform a bandwidth reservation process, it similarly is unable to execute a process for guaranteeing a bandwidth as the '427 Patent discusses.

As understood by a POSA, the term “guarantee” itself would require more than an initial check, at the time of connection, that the user equipment has (in that moment) sufficient bandwidth. Rather, as the language of the claim itself makes clear, the transmitter is configured to “execute[] a process for guaranteeing a communication bandwidth *required for transmitting content data*” (emphasis added), more than an initial check at the time of connection, the claim is specifically directed to a process to proactively guarantee a sufficient bandwidth for the entire transmission of the content data (which would necessarily include both the main content and the sub content). The ordinary meaning of the term guarantee supports this interpretation.

The '427 Patent itself discusses the SIP Standard directly, showing 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 if the acknowledgement messages indicated by Peloton do correspond with an underlying process, such a process is not actually performed by the SIP standard because the SIP standard itself does not force the system to connect or deny a connection based on that signaling – it is up to the specific transport function (which Petitioner does not identify or explain) to actually execute this process. See Ex[1001] at Fig. 2 (showing the bandwidth guarantee part 81 as being within the transport function part 80). The SIP Standard merely signals what the bandwidth at the user device currently is, and leaves it to the device itself (or as the ’427 Patent explains, the underlying protocol) to continue the connection or cancel it – once this check is done, the SIP Standard does nothing to “guarantee” a particular bandwidth. Peloton identifies no underlying protocol or device which would execute this process.

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.

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.

The Board reasons that “simply checking that the require bandwidth is acceptable, and if not, aborting the connection process” is sufficient to be a “process for guaranteeing a communication bandwidth.” However, this analysis fails to address the claim requirement and explanation within the specification of the ’427 Patent. First, if insufficient bandwidth is detected, the system would not “guarantee” communication at all, it would guarantee the opposite. Moreover, even if the system determines the bandwidth is acceptable at the moment of the bandwidth check, this does not guarantee the bandwidth will continue to be available throughout the duration of the communication. A POSA would understand “a process for ***guaranteeing a communication*** bandwidth” requires more than a bandwidth check performed at an instant in time prior to transmission—rather, it refers to a process for ensuring that the target device ***has and maintains*** a bandwidth necessary for the communication. *See* Ex[2010] ¶29. This is consistent with the plain and ordinary meaning of “guarantee,” which is “an assurance for the fulfillment of a condition.”

See *guarantee*, Merriam Webster Dictionary (2009), <https://web.archive.org/web/20090423141517/https://www.merriam-webster.com/dictionary/guarantee> (Ex[2031]).⁶

Thus, the “check” performed by the SIP Standard does not satisfy the claim because SIP explicitly does not perform a bandwidth *reservation* process, or provide resource reservation capabilities of “any kind.” Ex[1004] at 10 (“SIP Cannot, and does not, provide *any kind* of network resource reservation capabilities.”). A bandwidth “guarantee” is of necessity, a “kind” of reservation, but one which goes beyond merely reserving bandwidth, but actually taking steps to ensure that the bandwidth is and remains sufficient during the transmission period. The ’427 Patent itself illustrates this difference by explaining that the “core IMS part 30 executes a bandwidth reservation process *as preparation for guaranteeing a communication bandwidth.*” ’427 Patent at 13:59-62.⁷

⁶ Other definitions include “to engage for the existence, permanence, or nature of” and “to give security to.” https://web.archive.org/web/20111113054324mp_/http://www.merriam-webster.com/dictionary/guarantee%5B2%5D. *Id.* Other standard dictionaries define the term similarly. See *guarantee*, Oxford’s Advances Learner’s Dictionary (2014) (“to make certain that something will happen”), https://web.archive.org/web/20140502064310/https://www.oxfordlearnersdictionaries.com/us/definition/english/guarantee_2 (Ex[2008]).

⁷ And as noted above, this bandwidth reservation process can properly be construed as a part of the overall “process for guaranteeing a communication bandwidth” even if a necessary prerequisite part.

At the time of invention of the '427 Patent, POSAs understood that the SIP Standard alone could not be utilized to perform bandwidth guarantee functions – even in “Next Generation Network” scenarios which utilize “bandwidth management and control technology” recognize the need for a separate “bandwidth control mechanism *in cooperation with* the session initiation protocol (SIP).” Ex[2009] at 1. Specifically, POSAs understood that a “session control server” could reserve bandwidth “on the basis of SIP Session request” but, as this implies, it is not the SIP requests themselves which perform the reservation and/or guarantee, and Petitioner fails to provide any art or analysis to fill this gap in the Grounds.

The Petition’s, and SIP Standard’s, failing in this regarding 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.”⁸

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 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.

⁸ 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.

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.⁹

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.

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.

⁹ Patent Owner does not concede that these processes must be coterminal or even begun at the same time.

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”); *see also* Ex[2010] ¶34. 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 Tech. Mgmt, 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. Ex[2010] ¶34. 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. Arctic 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 Commc’ns., 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:¹⁰

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

¹⁰ Patent Owner does not concede that the alleged features *do* teach or suggest the features of the Challenged Claims, as discussed above.

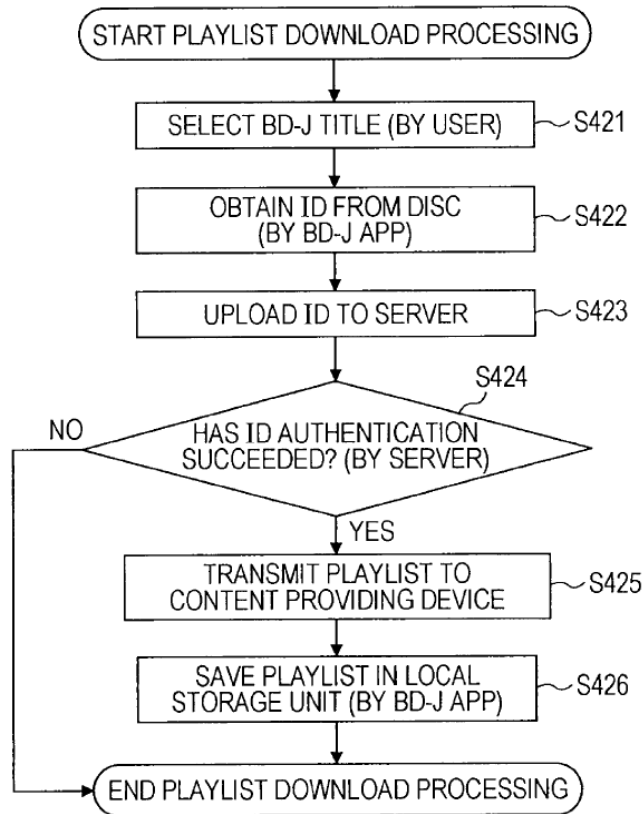
- “An SDP description *can contain* a number of media descriptions.” Petition at 51 (emphasis added).
- “Thus, a POSITA would have understood that an ordering of media description fields in an SDP description *can be used* to specify an order of media of a media stream.” *Id.* at 52 (emphasis added).
- “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 – that is, to provide “play-list information” (as defined by the claims) at a same time that a process for establishing a connection is executed. Ex[2010] ¶42; *see 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. 2007)). 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, as Petitioner identifies no motivation or teaching ***within the cited references*** for including play-list information “indicating a sequence in which the main content . . . and the sub content . . . are output.” See *Trivasular, 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). Peloton’s entire argument is premised on the ability of a POSA to be able to incorporate this “play-list information” into a SIP message, but it fails to identify any motivation to ***actually*** include this information in the message or an explanation of ***why*** a POSA would modify the message in such a way. Ex[2010] ¶33 In the absence of such argument Peloton relies upon improper hindsight bias to provide a justification – because the ’427 Patent describes the desire to transmit “play-list information” during the connection process, Peloton reasons that a POSA would have been able to do so, without any explanation as to how or why. *Trivasular*, 812 F.3d at 1066.

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 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.” *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 V.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 V.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] ¶102.

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 V.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 V.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 V.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. 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 V.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 V.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.

C. 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 V.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. is not 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 Tech. Mgmt.*, 885 F.3d at 1377 (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 *allege* 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-Sys.*, 821 F.3d at 1367 (“[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)).

Bechtolsheim is not directed to a protocol which *specifically* discusses its interoperability with the SIP Standard, *see* Pet. at 24, yet Peloton provides no explanation as to how Bechtolsheim could be integrated with respect to the SIP standard beyond stating “a POSITA would have been motivated to combine Bechtolsheim with SIP Standard.” *Id.*

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 V.A.5; *see also* Ex[2001] ¶123; Ex[2029] at 75:9-15 (“No. A communication message is not something that executes”). 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.”); *see also 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 V.C.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.

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. Bechtolsheim describes indicating, storing, and transmitting "bandwidth requirements," but it does not suggest that Bechtolsheim is executing any process for guaranteeing a particular bandwidth. *Id.* 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 V.C.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 V.C.3 and 4. Petitioner's argument must fail. 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 V.A.8 and V.C.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 V.C.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 V.A.8 and V.C.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.

D. 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 77.¹¹

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

¹¹ Though Petitioner has combined this and Ground 4 into a single section, for clarity, Patent Owner has separated it into two grounds.

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, despite that fact that Cohee necessarily involves the creation and transmission of play-list information, which is implicated by the SIP and SDP Standards since each relates, according to Peloton’s argument, to the actual timing regarding the transmission of play-list information to the user equipment. *See* Ex[2029] at 114:3-8 (“Q: You don’t describe the SIP standard, or the SDP standard or Bechtolsheim in this motivation is that correct? A: That is correct”).

As a result, Petitioner’s argument to combine Cohee and Ueda is legally insufficient. 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] ¶¶134-38.

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:

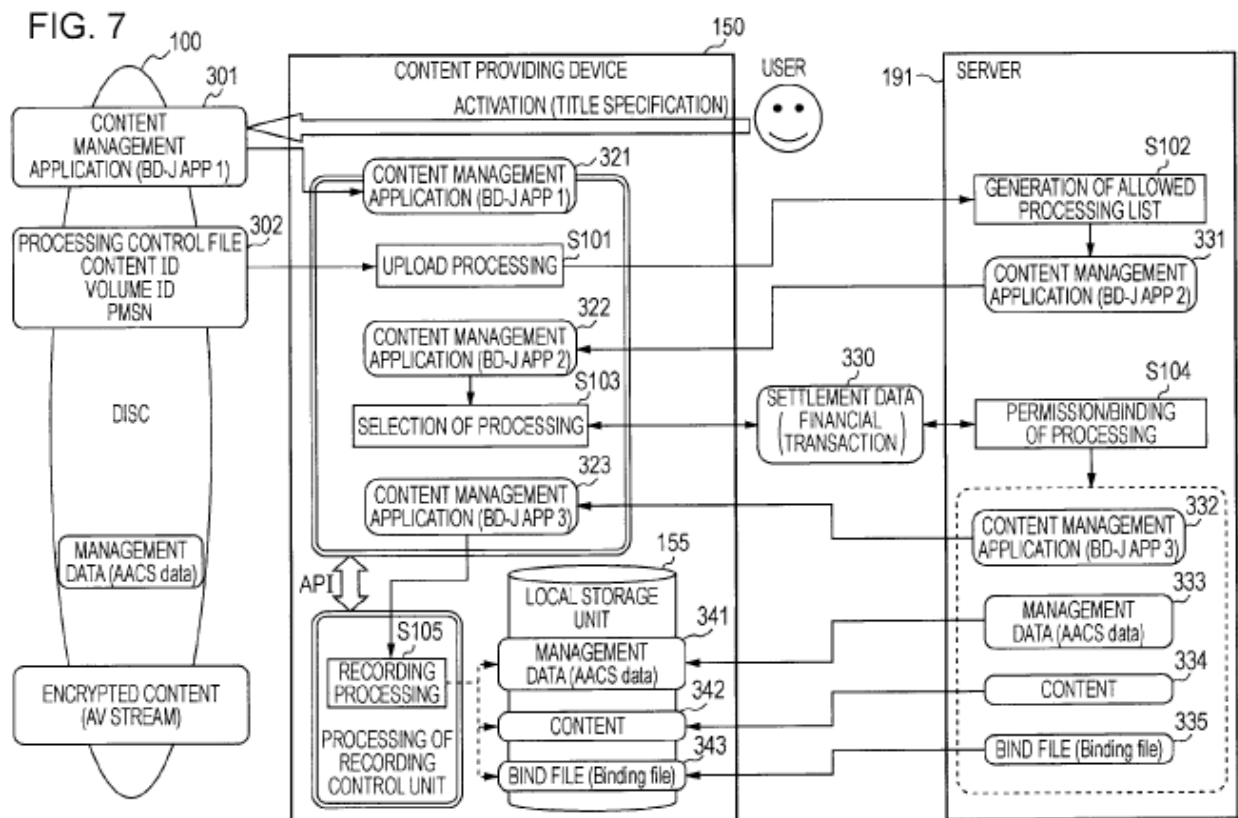
- “[W]herein the server holds no new commercial content to be provided to the user, the processing is ended.” Ex[1003] ¶0230.
- “[W]herein the server holds a new commercial content to be provided to the user, in step S285 the server transmits the latest commercial content to the content providing device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

Petitioner does not 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



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 “reduce dedication of end-user equipment local storage resources.” Ex[1008] ¶113; *see also* Ex[2001] ¶143. Petitioner’s argument should be dismissed.

But even further Petitioner fails to even *allege* that a POSA would have a “reasonable likelihood of success” in combining Cohee and Ueda and so its argument must fail. *See* Ex[1008] ¶113; Petition at 25; *see also* *Intelligent Bio-Sys.*, 821 F.3d at 1367 (“[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*, 942 F.3d at 1357 (“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 the proposed references. *See supra* Sections V.A.3 and 4. Further, and as discussed above, even this purported combination fails to disclose

each and every element of claims 1 and 14 of the '427 Patent. *See supra* Sections V.A.5, 6, and 8.

Petitioner's Ground 3 must fail. *See* Ex[2001] ¶¶144-49.

E. 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 Bechtolsheim. *See* Petition at 47. Petitioner has failed to put forth sufficient evidence showing a motivation to combine Cohee with Ueda as proposed. *See supra* Section V.D.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, and as such are not obvious at least for their dependence from an allowable base claim, and for the reasons discussed above. *See supra* Sections V.C.1, 2 and 4, and V.D.1., V.A.3, 4, and 6.

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

VI. CONCLUSION

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

Date: May 1, 2024

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 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: May 1, 2024

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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 RESPONSE” and Exhibits 2008-2032 thereto via the PTAB’s E2E system and sent via email as detailed below.

Date of service: May 1, 2024

Documents served: PATENT OWNER’S RESPONSE and EXHIBITS 2008-2032

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