

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CISCO SYSTEMS, INC.,

Petitioner,

v.

VIDEO SOLUTIONS PTE. LTD.,

Patent Owner.

IPR2024-00922

U.S. Patent No. 8,446,823

**PATENT OWNER VIDEO SOLUTIONS PTE. LTD.
PRELIMINARY RESPONSE TO PETITION**

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PATENT OWNER'S EXHIBIT LIST

Ex. #	Description
Ex. 2001	Intentionally left blank
Ex. 2002	Docket as of 09-13-2024
Ex. 2003	Vidal Memorandum on Interim Procedure for Discretionary Denials in AIA Postgrant Proceedings with Parallel District Court Litigation (June 21, 2022)
Ex. 2004	Third Amended Invalidity Contentions
Ex. 2005	Naidu US5805983
Ex. 2006	MARC 21 Bibliographic – Full, February 1999

CHALLENGED CLAIMS

Claim #	Claim Language
1.0.1	A method of managing multiple data streams transported through a common communications resource in a packet network, wherein data flowing through said resource travels in both directions, and wherein each stream is subject to data peaks, comprising:
1.1	establishing logical two-way connections through the common communications resource between one or more near endpoints and one or more far endpoints,
1.2	determining an undelayed round trip delay for each said logical two-way connection,
1.3	determining the maximum round trip delay among all said logical two-way connections,
1.4	preparing each of said data streams for transmission over respective said logical connections from a said near endpoint to a said far endpoint,
1.5	determining the location of said data peaks in said data streams,
1.6	transmitting said data streams over said respective logical two-way connections to said one or more far endpoints, and
1.7	delaying the transmission of one or more of said data streams that are transmitted over a said logical two-way connection having an undelayed round trip delay less than the maximum round trip delay by an amount dependent on the location of said peaks to reduce the degree of coincidence in the data peaks of different streams without increasing the maximum round trip delay for the logical two-way connections.
2	A method as claimed in claim 1, wherein the transmission of said data streams is delayed so as to remove any coincidence in said data peaks of different data streams.
3	A method as claimed in claim 1, wherein the delays introduced into the different data streams are ranked in accordance with the determined round trip delays for each logical two-way connection.
4	A method as claimed in claim 3, wherein the amount of delay that can be introduced into a data stream is capped at a predetermined value.

5	A method as claimed in claim 3, wherein the round trip delays are monitored over a period of time, and the rank order is changed as necessary to take into account changing round trip delays.
6	A method as claimed in claim 3, wherein the delays are introduced so as to evenly distribute the data peaks in different streams.
7	A method as claimed in claim 1, wherein the logical connections are established between a common source endpoint and multiple destination endpoints.
8	A method as claimed in claim 1, wherein said data streams represent video streams and said data peaks correspond to I-frames.

Under 37 C.F.R. § 42.107, Video Solutions Pte. Ltd. (“Video Solutions” or “Patent Owner”), files this preliminary response to the Petition for *inter partes* review of U.S. Patent 8,446,823 (the “’823 patent”), setting forth the reasons *inter partes* review should **not** be instituted.

I. INTRODUCTION

The Board should deny institution of this IPR because the Petitioner does not carry its burden to show unpatentability of at least one of the challenged claims of the ’823 patent. **First**, the Petitioner’s allegations regarding Ground 1 – the combination of Larson (Ex. 1005), Cai (Ex. 1009), and the purported knowledge of a POSITA –fails to teach or render obvious all limitations of the challenged claims of the ’823 patent. Specifically, the Petition does not set forth challenges to the claims with particularity, which is required for institution. While the Petition identifies Ground 1 as being based on a combination of Larson and Cai, the Petition effectively fill gaps in the teachings of these references with a large number of additional references that the Petition identifies under the banner of the knowledge of a POSITA. However, the teachings of these additional references are used substantively as part of the grounds in an ambiguous manner that creates a significantly large number of potential art combinations for Patent Owner and the

Board to consider. Accordingly, the Petition fails to set forth grounds with sufficient particularity to achieve institution.

The Petition additionally fails to demonstrate that the resulting combination of prior art teachings and purported knowledge of a POSITA teach or suggest several of the claim limitations, such as limitation [1.7]. Simply put, Petitioner contorts the teachings of the asserted references, which are directed to different solutions to different technical problems related to data transmission than the '823 patent, and proposes reference combinations without a rational underpinning to invalidate the challenged claims. This is classic hindsight bias that the Courts and PTAB have routinely held is insufficient to sustain an invalidity challenge.

Second, the Board should deny institution under *Adaptics* because the Petition raises voluminous and ambiguous *de facto* grounds through the use of multiple references being asserted to fill gaps in the Larson and Cai references under the banner of a POSITA's knowledge.

Third, the Board should discretionarily deny institution under *Fintiv* because the factors strongly favor denial and the Petition lacks compelling merits. As discussed in greater detail below, the corresponding district court litigation between the Parties (*Video Solutions Pte. Ltd. v. Cisco Systems, Inc.*, No. 2:23-cv-00222 (E.D. Tex. May 19, 2023) (Gilstrap, J.) is at a significantly advanced stage with trial

scheduled for February 2025, which is nearly a year before a final written decision would be reached in this IPR. Additionally, there are overlapping invalidity grounds and Petitioner has provided only a weak stipulation. There is also a low likelihood that Petitioner will request a stay, let alone that one would be granted at this late stage of the case. Furthermore, given the substantive deficiencies in the Petition, it does not present compelling merits that would override the strong case for discretionary denial under Fintiv.

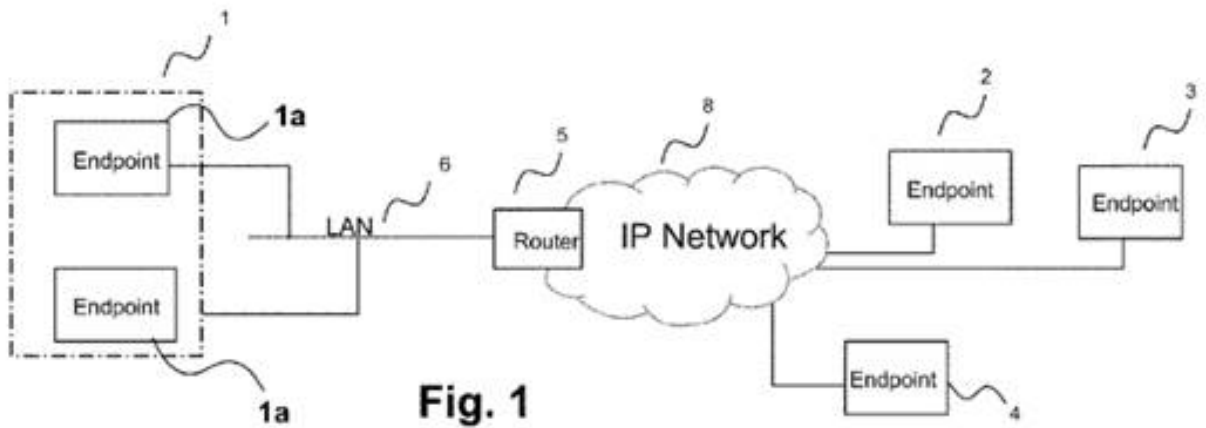
Third, the Petitioner has failed to carry its burden to establish public availability of the Cai reference. While the Petitioner provides a supporting declaration with corresponding exhibits from various libraries and online resources, the Petitioner has not presented any evidence that Cai was “disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence, can locate it,” which is required to establish “public accessibility.” *SRI Int’l, Inc. v. Internet Sec. Sys., Inc.*, 511 F.3d 1186, 1194 (Fed. Cir. 2008); *Hulu, LLC v. Sound View Innovations, LLC*, IPR2018-01039, Paper 29 at 16 (PTAB Dec. 20, 2019) (precedential).

II. OVERVIEW OF THE TECHNOLOGY AND OF THE ’823 PATENT

The ’823 patent is directed to methods and systems for managing multiple streams of data flowing in both directions over a network between two or more

endpoints, including by “delaying transmission of data peaks in one or more data streams to at least reduce the degree of coincidence in the data peaks of different streams.” Ex. 1001 at Abstract, 1:56-65.

The '823 patent describes transporting time sensitive data such as voice, audio, and/or video signals over logical two-way connections between endpoints on a network. Ex. 1001 at Abstract, 1:7-9, 2:61-3:6, Claim 1. The '823 patent describes exemplary endpoints such as endpoints 1a, 2, 3, and 4 in Figure 1, as well as endpoints 1, 2, 3, and 4 in Figure 2, such that the endpoints are interconnected by a network such as IP network 8 in the exemplary figures:



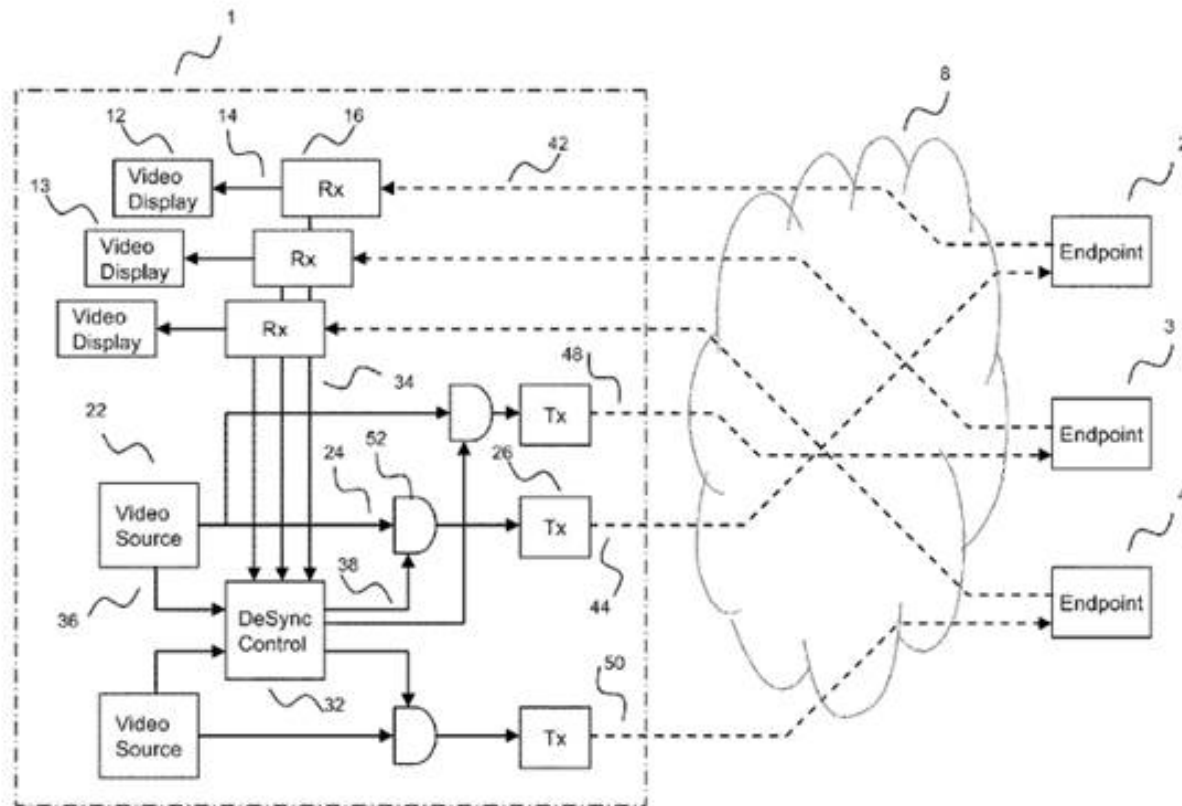


Fig 2 Video Conference Function Block Diagram

Fig. 2

Ex. 1001 at 2:41-49, 2:61-3:6, 4:4-11, 4:32-41.

The '823 patent explains that the endpoints may comprise a variety of different devices and does not restrict the endpoints' hardware configurations based on the figures or the exemplary embodiments. In particular, the patent states that “[t]he blocks shown illustrate functions that may be physically integrated with each other and/or other equipment (not illustrated),” and that “other hardware, conventional and/or custom, may be included.” Ex. 1001 at 4:24-26, 6:62-63. And

the patent explains that each endpoint may comprise multiple separate devices, such as when it explains that “[v]ideo source 22 could be a video camera, a group of switched cameras, or any other source of video including a Video Player, Multiparty Conference Unit (MCU), or a Gateway connection to legacy video equipment.” Ex. 1001 at 4:14-17.

The '823 patent describes that one or more logical two-way connections may be used to connect one endpoint to another over a network. For the exemplary embodiment in Fig. 2 the patent states that “[c]onnections 42 and 44 form one logical two-way connection” between endpoints 1 and 2. Ex. 1001 at 4:42-44. But the '823 patent does not limit the number of logical two-way connections used between one endpoint and another, stating that “[i]t will be understood that this method may be used for any number of connections.” *Id.* at 5:27-28. Further, the '823 patent describes that multiple intermediate devices may be used to connect one endpoint to another, stating that for the exemplary embodiment in Fig. 2, “[e]ndpoints 1 and 2, 3, 4 are interconnected via the IP network 8, which is understood to include all equipment necessary for IP connectivity between the locations,” and “[i]n particular, the network will include many routers, similar to 5 shown and other equipment,” as well as “[t]his other equipment may be at the respective location and/or part of a private network, a public network, especially the Internet.” *Id.* at 4:32-38.

The '823 patent describes that “[i]n general, the video data from different sources are not synchronized, which means that there is no particular temporal relationship between traffic peaks resulting from the various I-frames coming from different sources.” Ex. 1001 at 3:22-25. “From time to time drifting I-frame peaks will coincide again.” Ex. 1001 at 3:28-29.

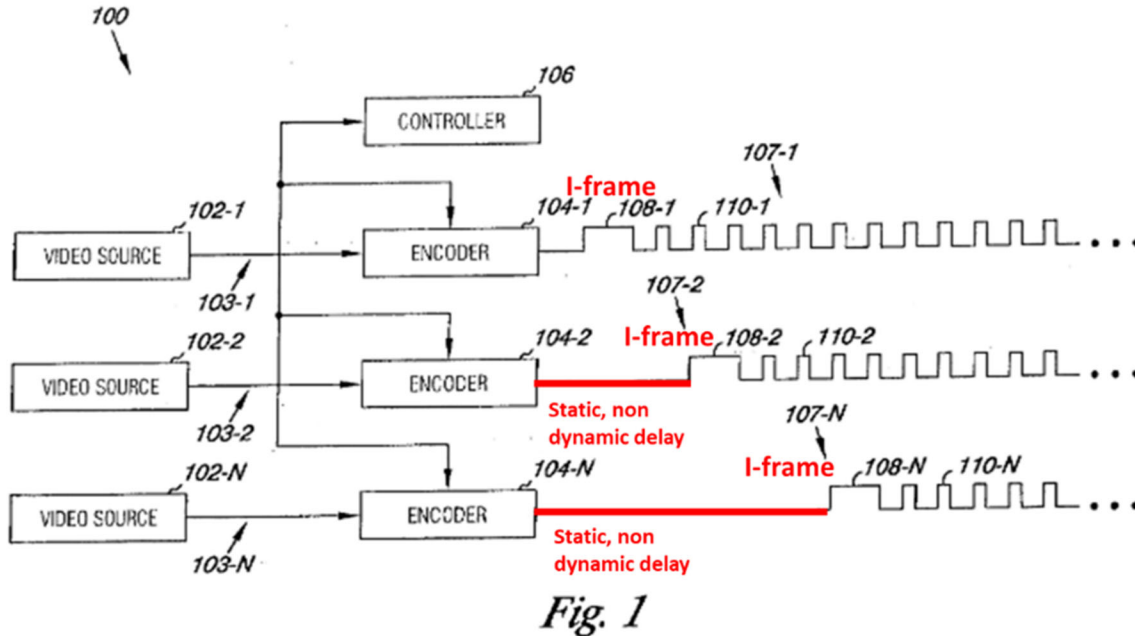
The '823 patent describes how, in exemplary embodiments, data streams transmitted between endpoints over a network may be delayed “so as to separate peaks that would otherwise coincide.” *Id.* at 5:12-13, Figs. 3-4. The '823 patent also explains how, if data peaks in different data streams coincide as shown in Figure 3, “the instantaneous traffic level may exceed the traffic capacity of one of more devices (e.g. router 5 in FIG. 1),” which may result in “loss of data” and “degradation of the transmitted picture.” *Id.* at 3:21-39. In exemplary embodiments, such as shown in Figure 4, a delay is applied to “the signal driving connection 48 so that its I-frame peaks do not align with signal 44.” *Id.* at 5:18-26.

III. OVERVIEW OF THE ASSERTED REFERENCES AND DUFFIELD

A. Larson (Ex. 1005)

Larson discloses a technique to stagger transmission, at the beginning, of the video signals with a known I-frame that occurs at the beginning of a group of pictures in each video signal. Ex. 1005 at [0026], [0030], [0037]; Fig. 1. Larson delays by

staggering the start of the signals “such that transmission of I-frames in the video streams are non-overlapping.” *Id.* at [0030]. Larson applies the staggering one-time using several pictures at the start of each of the streams:



Ex. 1005 at [0026], Fig. 1, (annotated).

Larson’s staggering is controlled (not dynamic) and is limited to the initiation of the data stream and is focused on having the I-frames not align to manage the bandwidth. Ex. 1005 at Fig. 1. Larson describes the staggering can be based on a group of pictures (GOP) or frames that can be intra-frames (I-frames) or predictive-frames (P-frames) and the GOP can vary in size based on compression. Ex. 1005 at [0002]-[0004], [0026], [0037]. Larson uses stagger to offset I-frames at the

beginning of groups of pictures in the streams and synchronizes the streams so as not to transmit I-frames at the same time. Ex. 1005 at [0037], [0038], [0049].

In addition, Larson recognizes that clock drift resulting from differences in signal speed can affect transmission of multiple streams that were originally synchronized by the staggering the streams and adds steps for synchronizing the signals from clock drift after the initiation of transmission of the streams. *Id.* at [0045]-[0048]. Larson admits that “signal variations...affect the signals such that I-frames can begin to overlap.” *See* Ex. 1005 at [0038]. After the start of the transmission of the streams is completed, Larson describes managing clock drift by affecting the number of frames encoded or transmitted to maintain synchronization between the streams and to avoid overlapping I-frames. *See* Ex. 1005 at [0049], [0050].

Further, Larson focuses on “reduc[ing] the effects of latency related to limited bandwidth.” *Id.* at [0074]. Larson explains that “[i]n contrast to latency related to transmission lengths, embodiments of the present disclosure may be used to reduce the effects of latency related to limited bandwidth.” *Id.* The distinction is important as Larson teaches that “[l]atency related to insufficient bandwidth to transmit multiple video signals may be different than latency related to different distances over which a signal may be transmitted.” *Id.* Larson clarifies that “signals

transmitted over longer distances may take longer to reach their destinations than signals transmitted over shorter distances.” *Id.*

B. Cai (Ex. 1009)

Cai describes an experiment in which message transmissions are coordinated across two network connections used by a single application and which emulates two remote clients that receive the same visualization data stream in real time collaboration. Ex. 1009 at 14(§4.1). Cai explains that “[t]he experiment uses two connections that share a bottleneck link but have different RTTs and therefore, different throughput.” *Id.* Cai describes that throughput is related to RTT in that “the throughput of a TCP connection will be inversely proportional to its RTT.” *Id.* Cai says the coordination tries to “improve synchronization between the two clients, thereby reducing buffering costs and increasing the ‘freshness’ of information received by each client.” *Id.* Or Cai’s goal is to synchronize the data streams so that the connections experience similar RTTs. Cai describes that in order to “better synchronize the two connections, the DAL layer performs rate adjustment based on the RTT information of each connection.” *Id.* Accordingly Cai describes performing rate control for packets on a faster connection such that “[i]f $RTT_1 < RTT_2$,” the rate of connection 1 is adjusted “by adding a delay of $RTT_2 - RTT_1$ to its packets.” *Id.* Cai says with “this adjustment, the connections 1 and 2 then experience similar

RTTs.” *Id.* So, Cai describes using rate control of individual message packets for a connection with a higher throughput to synchronize it with another connection with a slower RTT and lower throughput to lower buffering costs for the connections. *Id.* Thus, Cai’s goal is to improve **signal synchronization** between two clients. *Id.*

C. Duffield (Ex. 1008)

Duffield relates to queuing systems for routers and switches and describes three modified fair queueing schemes that adaptively redistribute excess bandwidth. Ex. 1008 at 1124. One of the fair queueing schemes Duffield discloses is a longest delay first (LDF) redistribution that serves the connection with the current longest delay but “does not take into account the maximum allowed delay for each connection.” Ex. 1008 at 1122, 1124. In the longest delay first redistribution, the “scheduler serves connections that are most likely to exceed their allocated maximum delay” and the connection served “is one that is more likely to overflow and exceed its delay bound.” *Id.* Also, in the longest delay first redistribution, the scheduler uses “the excess bandwidth to try and equalize the delays of all connections in the system and minimize the packet losses if buffer sizes have been allocated proportional to bandwidth requirements.” *Id.* Duffield’s described LDF redistribution allocates **excess network bandwidth to the connection** most likely to exceed its allocated maximum delay which differs from the challenged claims. *Id.*

IV. PERSON OF ORDINARY SKILL IN THE ART

Patent owner agrees to use Petitioner's definition for a POSITA for the purposes of this IPR. Pet., p. 18.

V. CLAIM CONSTRUCTION

Patent owner agrees with Petitioner that, for this proceeding and the grounds presented by Petitioner, no claim term requires construction. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd.*, 868 F. 3d 1013, 1017 (Fed. Cir. 2017) (noting that “we need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’”).

If trial is instituted, and to the extent any claims are in dispute, Patent Owner reserves the right to propose constructions at that time.

VI. THE BOARD SHOULD DENY INSTITUTION BECAUSE THE PETITION FAILS TO ESTABLISH THAT THE CHALLENGED CLAIMS ARE UNPATENTABLE

The Petitioner has failed to carry its burden to “show[] that there is a reasonable likelihood that the petitioner would prevail regarding at least 1 of the claims in the challenged petition.” 35 U.S.C. § 314(a). “[A] petitioner *must* make its case-in-chief in the petition” and the petition must “identify ‘with particularity’ the ‘evidence that supports the ground for the challenge to each claim.’ 35 U.S.C. § 312(a)(3).” *PeakLogic, Inc. v. Wave Neuroscience, Inc.*, IPR2022-01527, Paper 13

at 4-5 (PTAB May 18, 2023); *Intelligent BioSys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369–70 (Fed. Cir. 2016); *see also Hulu, LLC v. Sound View Innovations, LLC*, IPR2018-01039, Paper 29 at 6–7 (PTAB Dec. 20, 2019) (precedential) (discussing § 312(a)).

The PTAB has held that “with particularity” requires that the Petition identify to “the particular features of *each* reference in the modified device of [the] asserted ground.” *IronRidge, Inc. v. Pregasus Solar, Inc.*, PGR2022-00024, Paper 9, p. 40 (PTAB Aug. 10, 2022) (citing *ActiveVideo Networks, Inc. v. Verizon Commc’ns, Inc.*, 694 F.3d 1312, 1327 (Fed. Cir. 2012) (discussing how an accused infringer, via its expert, “failed to explain how specific references could be combined, which combination(s) of elements in specific references would yield a predictable result, or how any specific combination would operate or read on the asserted claims”). In *IronRidge*, the PTAB found that the “Petitioner does not identify with sufficient particularity, the particular features of each reference in the modified device of this asserted ground” because the Petition identified multiple references as disclosing the same claims aspects “and then stating these aspects are provided by the combination.” *Id.* at pp. 39-40.

The Petition presents challenges that are amorphous and generalized—relying extensively on the assertions of “textbook knowledge” to fill gaps in Larson and Cai

with regard to the claim limitations. The Petition's alleged "textbook knowledge" is, itself, based on a hodgepodge of at least nine references that are not expressly identified in the Ground, but which are asserted as part of the Ground through string cites supporting the assertions about "textbook knowledge." As a result, it is unclear which references, including the additional "textbook knowledge" references not expressly identified as part of the Ground, the Petitioner is actually asserting for particular limitations, let alone which portions of these references are part of the resulting combination that the Petitioner ultimately is attempting to present. The Petitioner's challenges lack the particularity requirement and the Board should decline to institute.

Below, Patent Owner raises several instances of the Petition's lack of particularity and resulting failure to identify teachings that disclose the claim limitations. These failings are found throughout the Petition, though, which attempts to backdoor a myriad of possible prior art combinations and teachings through its assertions of nebulous "textbook knowledge." Simply put, it is difficult to track let alone respond to all of the art combinations and permutations that are presented in the Petition. Accordingly, the Board should deny institution of the Petition.

Additionally, a patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. 35 U.S.C. § 103(a) (2000).

“In making the assessment of differences, section 103 specifically requires consideration of the claimed invention “as a whole.” Inventions typically are new combinations of existing principles or features. *Envtl. Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 698 (Fed. Cir. 1983) (noting that “virtually all [inventions] are combinations of old elements.”). The “as a whole” instruction in title 35 prevents evaluation of the invention part by part. Without this important requirement, an obviousness assessment might break an invention into its component parts (A + B + C), then find a prior art reference containing A, another containing B, and another containing C, and on that basis alone declare the invention obvious. This form of hindsight reasoning, using the invention as a roadmap to find its prior art components, would discount the value of combining various existing features or principles in a new way to achieve a new result—often the very definition of invention.” *Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 1275 (Fed. Cir. 2004).

Section 103 precludes this hindsight discounting of the value of new combinations by requiring assessment of the invention as a whole. This court has provided further assurance of an "as a whole" assessment of the invention under § 103 by requiring a showing that an artisan of ordinary skill in the art at the time of invention, confronted by the same problems as the inventor and with no knowledge of the claimed invention, would select the various elements from the prior art and combine them in the claimed manner. In other words, the examiner or court must show some suggestion or motivation, before the invention itself, to make the new combination. *See In re Rouffet*, 149 F.3d 1350, 1355-56 (Fed. Cir. 1998).

A. The Petition's Analysis of Element [1.2] Lacks Particularity.

The Petitioner alleges that Larson discloses a portion of Element [1.2], but then goes on, for example, to concede that “Larson does not disclose the details in implementing RTP in its videoconferencing system for determining current RTD for each logical two-way connection (element [1.2]).” Pet., pp. 49-50. The Petition then goes on to allege that the purported “textbook knowledge” would remedy the deficiencies of Larson, which involves citing to at least *five* different references—EX1006, EX1011, EX1019, EX1020, and EX1021—that are not identified as part of the asserted Ground. Pet., p. 50. And this “textbook knowledge” that is called out

for Element [1.2] is extensive – alleged to include knowledge of “delay sensitivity of videoconferencing applications made RTD an important network parameter to measure for each terminal-to-terminal connection” and “us[ing] standardized information provided in RTCP reports to determine the initial (i.e., undelayed) RTD for each logical connection, especially in videoconferencing systems.” Pet., p. 50. The Petition then goes on to state that, based on these teachings, a POSITA understood Larson’s implementation included teachings that the Petition conceded are not disclosed by Larson.

Petitioner’s arguments here are flawed and deficient. In particular, the Petition does not identify with particularity which five additional prior art references included in the “textbook knowledge” string cite disclose the missing limitations in Larson, let alone which of these references disclose features that would be present in the resulting combination. Additionally, it is unclear whether the Petition’s resulting combination requires a combination of the teachings from all five additional references, or whether instead the Petition is proposing five separate possible combinations or permutations thereof, which could include up to 120 different combinations (5! Possible combinations).

Furthermore, the Petition’s conclusory statement that POSITAs understood Larson’s disclosure included the missing features from Element [1.2] based on this

“textbook knowledge” is effectively a combined teaching of Larson in view of one or more of the five additional references. To the extent the Petition was attempting to establish that Larson inherently teaches these features, the Petition does not allege inherency or meet the standard to demonstrate inherency, which requires “a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic *necessarily* flows from the teachings of the applied prior art.” *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). Accordingly, the Petition is alleging a combination of Larson in view of one or more teachings from the “textbook knowledge” references, which lack particularity.

While the Petition goes on to provide an alternate theory that Cai remedies the deficiencies of Larson, the Petition's allegations again lack particularity. Pet., pp. 50-51. In particular, the Petition does not even cite to any portions of Cai in its allegations, and then goes on to again assert textbook knowledge (“widely understood,” “well-understood”) that relies on a string cite to *five* additional references (EX1006, EX1007, EX1009, EX1019, EX1020). Pet., p. 51. Again, the Petition does not specify which of these additional references provide the teachings that are combined with Larson in view of Cai as part of the Petition's allegation.

B. The Petition's Analysis of Element [1.3] Lacks Particularity.

The Petition alleges that Larson discloses a portion of Element [1.3], and apparently to further the combination discusses a so called “avoiding coincidence” solution” and alleges it was “textbook knowledge” that “if additional delay was intentionally added to the video stream in the connection with the current maximum (longest) RTD,” then the result would be worsening the experience, which involves citing to eight different references, six of which—EX1006, EX1021, EX1007, EX1119, EX1020, EX1008—are not identified as part of the asserted Ground. Pet., at pp. 52-54. And this “textbook knowledge” that is identified for Element [1.3] is extensive—alleged to include knowledge that “RTDs in the different terminal-to-terminal connections are different from each other and changing over time in packet networks” and that “the delay sensitivity of videoconferencing applications made RTD an important network parameter to measure for each terminal-to-terminal connection.” Pet., at p. 54. The Petition then goes on to make the conclusory statement that “dynamically determining a current maximum RTD among the various logical connections” was a known solution and that selecting this known solution would be a mere design choice to POSITAs, which involves citing to another reference and two internal sections without explanation. Pet., at pp. 55-56.

Petitioner's arguments here are deficient. In particular, the Petition does not identify with particularity which six additional prior art references included in the "textbook knowledge" string cite disclose features that would be present in the resulting combination. Additionally, it is unclear whether the Petition's resulting combination requires a combination of the teachings from all six additional references, or whether instead the Petition is proposing six separate possible combinations or permutations thereof.

Furthermore, the Petition's conclusory statement that "dynamically determining a current maximum RTD among the various logical connections" was a known solution and that selecting this known solution would be a mere design choice to POSITAs is effectively a combined teaching of Larson in view of one or more of the cited references. Accordingly, the Petition is alleging a combination of Larson in view of one or more teachings from the various cited references, which lack particularity.

To the extent, the Petition alleges an alternate theory that Cai remedies the deficiencies of Larson, the Petition's allegations again lack particularity. Pet., at pp. 54-55. In particular, the Petition relies on a string cite to an additional reference (Ex. 1008 Duffield) and Sections V.G.3 and VII.A.3 without explanation. Pet., at p. 56. Again, the Petition does not specify which of these additional references provide the

teachings that are combined with Larson in view of Cai as part of the Petition's allegation.

C. The Petition's Analysis Lacks Particularity and fails to show that the asserted ground of Larson in view of Cai and the knowledge of a POSITA, discloses or renders obvious claim limitations in Element [1.7].

As discussed below, the evidence presented by Petitioner is deficient and fails to show that the asserted ground of Larson in view of Cai and the knowledge of a POSITA, discloses or renders obvious claim limitations in independent claim 1. Accordingly, the challenges raised in the Petition are deficient and the Board should deny institution.

Contrary to the Petitioner's arguments, the combination of Larson in view of Cai, and the knowledge of a POSITA does not disclose or suggest at least claim element [1.7]. Thus, Petitioner fails to show that independent claim 1 is unpatentable over Ground 1. Claim element [1.7] recites:

delaying the transmission of one or more of said data streams that are transmitted over a said logical two-way connection having an undelayed round trip delay less than the maximum round trip delay by an amount dependent on the location of said peaks to reduce the degree of coincidence in the data peaks of different streams without increasing the maximum round trip delay for the logical two-way connections.

Ex. 1001 at 7:9-10, 19-26.

In addressing the language of claim element [1.7], the Petition states that Larson discloses first transmitting one of the data streams, while delaying the transmission of another said data stream. Pet., p. 59. Larson describes staggering the initiation of video signals by a number of pictures at the beginning of the signal but this does not render obvious the “delaying” limitation according to element [1.7]. As seen in Fig. 1, Larson transmits video streams such that the I-frames do not overlap by staggering the streams. *See* Ex. 1005 at Fig. 1. Larson relies on the synchronization of encoding or transmitting the video streams to stagger the I-frames in a non-overlapping fashion. *See* Ex. 1005 at [0033]. Larson relies on the synchronization of the streams to locate where the I-frames will be in each stream because Larson describes that “[e]ach video stream can include a group of pictures, which ... can include an I-frame and a number of P-frames,” and continuing coordination of transmission of the video streams “may be facilitated by ... encoding each video stream with a common number of pictures in their respective groups of pictures.” Ex. 1005 at [0031], [0032]. Petitioner has not shown how applying the varying RTTs as described by Cai to the technology of Larson would involve implementing known and standardized solutions to Larson’s technology as described in claim element 1.7.

Petitioner argues with little specificity and conclusory language that Cai's teachings would involve implementing known and standardized solutions to problems to achieve known and predictable benefits including "by homogenizing the respective delays." Pet., pp. 61-62. Petitioner does not specify with particularity how the technology of Cai and Larson are combined in the claimed manner of element [1.7] and leaves to speculation as to how the features of Larson, in view of Cai, would be modified to arrive at the claimed invention. Pet., pp. 41-45.

Moreover, during prosecution of the '823 patent, a similar teaching to Cai's synchronizing or homogenizing feature was argued and overcome when the examiner relied on the reference Naidu (Ex. 2005). In Naidu, a delay detector measures the present delay in each path, and then adds an additional delay so all the paths have the same delay. Ex. 2005, Naidu at Abstract 1:7-10. The prosecution history reflects applicant's arguments in response to the rejection based on Naidu:

As noted, the object of Naidu is to equalize the delay time, which is precisely the opposite objective to the present invention. In Naidu, a delay detector measures the present delay in each path, and then adds an additional delay so that all the paths have the same delay. As a result, the bursts are synchronized....

By contrast the purpose of the invention is to desynchronize the bursts (peaks) so that they do not all pass through the common resource (router) at the same time.

Ex. 1002 at 26.

For these reasons, the Petitioner has not identified with particularity the evidence that supports the ground for the challenge to at least claim 1, and Petitioner has failed to show how the combination of Larson in view of Cai and the knowledge of a POSITA discloses or renders obvious claim element [1.7].

VII. PETITIONER HAS NOT SHOWN A MOTIVATION TO COMBINE THE TEACHINGS OF LARSON AND CAI

The mere existence of prior art elements is not sufficient to render a claimed invention obvious; rather, there must be clear reasons for a person of ordinary skill in the art to combine those elements in the claimed manner. *Virtek Vision International ULC v. Assembly Guidance Systems, Inc.*, 97 F.4th 882, 888 (Fed. Cir. 2024); *See Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015) (“[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.”).

Petitioner has not shown there would be a motivation to combine the teachings of Larson and Cai because there would be no reasonable expectation of success as

the proposed combination is not suitable to arrive at the claimed invention. Cai describes an experiment with two connections and does not show comparing more than two RTTs. Ex. 1009 at 14(§4.1). Cai describes calculating a difference in two RTTs and adding the difference as a delay to packets so the connections experience similar RTTs. *Id.* Petitioner has not shown how substituting video streams with different RTT/RTDs for the synchronized video streams as described by Larson would be suitable and how the substitution would maintain the synchronization relied on in Larson's technology and how Larson's staggering at the initiation of the video streams by a number of frames would be modified to achieve claim element [1.7].

As for the language of [1.7], with little explanation, Petitioner argues that Cai discloses "using a maximum current RTT first (longest delay first) transmission scheme" and argues that it addresses a "heterogeneous packet network connection problem" while relying on Duffield's longest delay first scheme in arguing that "the same solution disclosed in the '823 Patent for solving" this problem was well known. Pet., p. 42. However, neither Larson in view of Cai nor Duffield describe or render obvious the limitations of claim element [1.7] because the longest delay first redistribution as described by Duffield is not a suitable design choice as it actually

allocates excess network bandwidth to the connection most likely to exceed its allocated maximum delay bound.

VIII. INSTITUTION SHOULD BE DENIED UNDER ADAPTICS

As discussed above, the Petition's challenges effectively present "voluminous and excessive grounds" that "suffer from a lack of particularity and indefinite scope," which the Board should decline to institute under *Adaptics*. See *Adaptics Limited v. Perfect Company*, IPR2018-01596, Paper 20 (PTAB Mar. 6, 2019) (informative).

Under *Adaptics*, the "Board has consistently denied petitions that asserted inordinately large numbers of ambiguous grounds." *Uber Technologies, Inc. v. Surgetech LLC*, IPR2023-00738, Paper 8, p. 14 (PTAB Oct. 23, 2023) (citing *EnergySource Minerals, LLC v. TerraLithium LLC*, IPR2019-01607, Paper 10 (PTAB May 4, 2020); *Sinjimoru v. Geneze Innovation Inc.*, IPR2021-00493, Paper 8 (PTAB July 28, 2021); *Playtika Ltd. and Playtika Holding Corp. v. NexRF Corp.*, IPR2021-00952, Paper 14 (PTAB November 6, 2021)). For example, in *Uber*, the Board denied institution under *Adaptics* because "the precise prior art combinations asserted are ambiguous" due to the Petition not specifically delineating prior art combinations for its grounds putting the burden on Patent Owner and the Board to discern which prior art references were applicable. *Id.* at pp. 19-20. In *Uber*, the

Board the number of grounds considered under *Adaptics* is not limited to the expressly identified grounds, and can additionally encompass de facto grounds resulting from ambiguous combinations of references asserted in the Petition. *Id.*, p. 21.

As discussed above, the Petition raises ambiguous grounds that can reasonable be interpreted to present hundreds of prior art combinations for Patent Owner and the Board to potentially consider. In particular, the Petition's string citations to numerous references supporting claims of "textbook knowledge" to fill gaps in the Larson and Cai references present voluminous potential art combinations. For example, with regard to element [1.2] alone, the Petition raises upwards of 120 prior art combinations based on five additional "textbook knowledge" references which could be applied individually or combined in any number of permutations (5! combinations). When expanded across all elements, the number of prior art combinations presented by the Petition expands well into the hundreds if not thousands. Regardless, these ambiguous and voluminous challenges merit denial of institution under *Adaptics*.

IX. THE BOARD SHOULD DISCRETIONARILY DENY INSTITUTION UNDER *FINTIV*

Discretionary denial under § 314(a) is appropriate. Patent owner asserts the '823 patent (and three other patents) against Petitioner in the parallel district court proceeding, *Video Solutions Pte. Ltd. v. Cisco Systems, Inc.*, No. 2:23-cv-00222 (E.D. Tex. May 19, 2023) (Gilstrap, J.). That case has a February 10, 2025, trial date, ***10 months before*** the expected date of a final written decision in this IPR, if instituted. The district court case is in its advanced stages. The parties have exchanged multiple sets of invalidity and infringement contentions, conducted at over 20 depositions, the claim construction hearing was held on August 13, 2024, and a substantive *Markman* Order is forthcoming from the court, fact discovery closes on September 23, 2024, and expert discovery would be completed on October 28, 2024, before a projected institution decision is due. At the time of institution, the parties and the Court would have invested substantial time and resources.

The Board has consistently denied institution in similar factual circumstances. *See, e.g., Luxshare Precision Industry Co., Ltd. v. Amphenol Corp.*, IPR2022-00132, Paper 10, at 9-10 (PTAB May 3, 2022) (10-month differential between target date for ITC's final determination and deadline for final written decision); *Hillman Group, Inc. v. Hy-Ko Products Co. LLC*, IPR2022-00168, Paper 8, at 8-9 (PTAB

May 9, 2022) (jury trial is scheduled nearly ten months before final written decision); *Supercell*, IPR2021-00041, Paper 10, 13-14 (PTAB June 22, 2021) (“when trial in the parallel proceeding is scheduled to occur 10 months prior to our Final Written Decision, we determine the facts underlying this factor weigh strongly toward denying institution”); *Supercell*, IPR2020-00513, Paper 11, at 8–10 (PTAB June 24, 2020) (eleven-month gap between trial and deadline for final written decision); *Supercell*, IPR2020-00215, Paper 10, at 10–12 (PTAB June 20, 2020) (ten-month gap); *Google LLC v. Personalized Media Communications, LLC*, IPR2020-00719, Paper 16, at 11 (PTAB Aug. 31, 2020) (ten-month gap); *Kranos Corporation v. Apalone, Inc.*, IPR2020-00501, Paper 13, at 10 (PTAB July 16, 2020) (ten-month gap); *Edwards Lifesciences*, IPR2019-01479, Paper 7, at 7 (PTAB February 26, 2020) (nine-month gap); *Apple Inc. v. Maxell, Ltd.*, IPR2020-00203, Paper 12, at 10 (PTAB July 6, 2020) (eight-month gap); *Intel Corporation v. VLSI Technology LLC*, IPR2020-00106, Paper 17, at 7 (PTAB May 5, 2020) (seven-month gap); *Vizio, Inc. v. Polaris PowerLED Technologies, LLC*, IPR2020-00043, Paper 30, at 8 (PTAB May 4, 2020) (seven month gap); *NHK Spring*, IPR2018-00752, Paper 8, at 20 (six-month gap).

The *Fintiv* factors support denying institution because of, among other things, the earlier trial date in the parallel proceeding. *Apple Inc. v. Fintiv, Inc.*, IPR2020-

00019, Paper 11 at 6 (PTAB March 20, 2020) (designated precedential May 5, 2020).

As demonstrated below, all six factors support denial.

A. Factor 1 - Whether evidence exists that a stay may be granted if a proceeding is instituted.

This factor strongly favors denying institution. Petitioner provides no sign it will seek a stay in the district court proceeding. Petitioner states only that no request has been filed. Pet., p. 66. But Petitioner makes no mention it intends to move for a stay.

Even if Petitioner moved for a stay, the district court likely would not grant this motion at this late stage. The Third Amended Docket Control Order (Ex. 1027)¹ applies to all four asserted patents,² including the patent-at-issue and shows the trial date is set for February 2025.

It is less likely a stay will be granted the longer the case goes on, and the parties and court continues to spend resources. The trial date is also a *mere 2 months* after the projected institution date of December 2024. At this stage, institution will lead

¹ Trial date has not changed.

² The four patents-at-issue are U.S. Patent Nos. 8,446,452 (time barred); 9,204,099 (IPR instituted); 8,649,426 (IPR instituted); and 8,446,823 (subject of present IPR).

to duplicative costs. With everything taken in totality, this factor weighs against institution. *See Fintiv*, Paper 11, at 9-10.

B. Factor 2 - Proximity of the court's trial date to the Board's projected statutory deadline for a final written decision.

This factor weighs heavily against institution. As stated above in *NHK Spring*, “[i]f the court's trial date is earlier than the projected statutory deadline, the Board generally has weighed this fact in favor of exercising authority to deny institution under *NHK*.” *Fintiv*, Paper 11, at 9. Such as in this case, a jury trial is scheduled to conclude *10 months* before a final written decision would be due in this proceeding if the Board instituted. Many cases find delays of 10 months or less between the trial and the expected final written decision applicable to justify denial of institution.

Petitioner agrees that the trial is scheduled for February 10, 2025—*10 months* before the statutory deadline for the final written decision due December 2025. *See* Pet., p. 66. However, Petitioner states that there are three other cases on Judge Gilstrap's docket on the same day and argues that due the inherent uncertainty this factor is neutral. Pet., p. 66. We disagree. In particular, Director Vidal notes that for *Fintiv* Factor 2, “the PTAB will consider the median time from filing to disposition of the civil trial for the district in which the parallel litigation resides.” Ex. 2003, 3. Director Vidal's guidance does not show that the number of Jury Selections on the

date of trial is a factor that the Board will consider. *Id.* The most recent statistic on median time to trial from filing for civil proceedings in Texas, Eastern District is 21.4 months. Ex. 1013 at 35. The May 2023 complaint filing date aligns with the trial date set for 21.4 months later, and the timing precedes the statutory deadline for the Final Written Decision by 10 months. As the guidance on *Fintiv* Factor 2 in Director Vidal's memo dictates (Ex. 2003), "the PTAB will consider the median time from filing to disposition of the civil trial for the district in which the parallel litigation resides." Ex. 2003 at 3.

Thus, the district court's decision will issue long before the final written decision on this IPR. And Petitioner has not indicated that that trial date will be delayed. This factor strongly favors denial.

C. Factor 3 - Investment in the parallel proceeding by the court and the parties.

This factor also strongly favors denial of institution. First, contrary to Petitioner's arguments (Pet., p. 66), this case is not in its early stages. This case has been ongoing for **16 months**.³ During that time, Patent Owner has responded to at least 48 categories requesting documents yielding 26,773 pages, and Petitioner has produced 273,549 pages in response to discovery requests; 54 interrogatories

³ And **19 months** by the projected institution date of December 2024.

between the parties and over 20 depositions; Petitioner served Letters of Rogatory in Canada on 4 entities receiving almost 12,000 pages in response; exchanged 3 sets each of infringement and invalidity contentions; the claim construction hearing was held on August 13, 2024, fact discovery closes September 23, 2024, expert discovery closes October 28, 2024, and trial is set in a mere five months for February 10, 2025.

Second, the parties and court have invested significant resources. For example, both sides have engaged multiple experts for analyzing source code and damages, analyzing infringement and invalidity grounds, and preparing witnesses, taking and defending the aforementioned depositions, completed a *Markman* hearing, prepared expert reports (due September 23, 2024) and dispositive and *Daubert* motions are due before the expected institution decision. These are not trivial spends for the parties or trivial use of the court's resources, but rather significant investments that tilt this factor strongly towards denying institution.

Petitioner's claim they were diligent in filing the IPR (that took **over 6 months** after service) but this one act should not outweigh the overwhelmingly strong evidence against institution such as the advanced state of the parallel litigation and the proximity of the trial.

D. Factor 4 - Overlap between issues raised in the petition and in the parallel proceeding.

This factor also strongly favors denial of institution. This factor requires consideration of “inefficiency and the possibility of conflicting decisions.” *Fintiv*, Paper 11 at 12.

Petitioner's Third Amended Invalidity Contentions, served both before Patent Owner filed this Petition, name Larson as a primary prior art reference. *See* Ex. 2004 (Third Amended Invalidity Contentions) at 86.⁴ Additionally, all claims challenged in the district court litigation (1, 2, 7, and 8) overlap with the IPR challenged claims (1-8).

Petitioner's stipulation (*i.e.*, that “it will not pursue the same ground in the district court litigation” (Pet., p. 7)) does little to cure the overlap. This stipulation is contrary to the law. *See Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 18 (PTAB Dec. 1, 2020) (precedential as to § II.A); *California Inst. of Tech. v. Broadcom Ltd.*, 25 F.4th 976, 991 (2022) *cert. denied sub nom. Apple Inc. v. California Inst. of Tech.*, 143 S. Ct. 2658, 216 L. Ed. 2d 1236 (2023). Under Director Vidal's Guidance Memo on applying the *Fintiv* framework, the Board

⁴ Video Solutions filed its Amended Complaint on November 27, 2023, and Petitioner served its Second Amended Invalidity Contentions on February 29, 2024.

should consider the estoppel offered by the Petitioner and the standard estoppel stipulation should be a broad *Sotera* stipulation, “any ground that [it] raised or reasonably could have raised” during the IPR, if instituted. Petitioner’s stipulation falls far short of this standard. Ex. 2004 at 3; *See Roku, Inc. v. IOENGINE, LLC*, IPR2022-01551, Paper 11 (May 5, 2023) (PTAB discretionarily denying the petition under *Fintiv* when the district court trial would probably precede the PTAB’s final written decision by six months and the petitioner only stipulated to not raising the same invalidity grounds in district court it raised in the IPR petition.).

Petitioner’s ground-based stipulation does nothing to mitigate the overlapping issues. For example, Petitioner states that its primary references (*e.g.* Larson)⁵ can be combined with the other primary or secondary references. Ex. 2004 at 86. Under Petitioner’s stipulation, it can continue to use Larson as a primary reference with any primary or secondary reference to make essentially a “new” ground, *i.e.*, Larson plus

⁵ Ex. 2008 at 86 (“Cisco hereby identifies the following ’823 Patent Primary References: **Cooper**, Olshansky. **Comer**, Larson.”). Cisco included Cooper (Ex. 1018) and Comer (1023) in this IPR and therefore could have reasonably raised these grounds in petition and should be estopped from relying on them in the parallel litigation. Cisco also identified additional secondary references. *Id.* at 81-82.

any other second reference. *See* Ex. 2004 at 86-95. This undermines the purpose of estoppel. Put simply, Petitioner's stipulation *eliminates none* of the *twelve* references it has put forth. Petitioner should not get two bites at the apple—to litigate essentially the same grounds and use the same art in the IPR proceeding and the parallel district court proceeding. *See California Inst. of Tech.*, 25 F.4th at 976 (“Accordingly, we take this opportunity to overrule *Shaw* and clarify that estoppel applies not just to claims and grounds asserted in the petition and instituted for consideration by the Board, but to all grounds not stated in the petition but which reasonably could have been asserted against the claims included in the petition. In a regime in which the Board must institute on all challenged claims and the petition defines the IPR litigation, this interpretation is the only plausible reading of “reasonably could have been raised” and “in the IPR” that gives any meaning to those words.”). Here, Based on Petitioner's Invalidity Contentions (served before the IPR was filed), Petitioner could have reasonably raised the prior art references in the Contentions.

In *Hillman*, the Board was “persuaded that the availability and possible assertion of the ‘related references’ in the District Court in place of the specific references asserted in the proceeding weaken the *Sand Revolution*-type stipulation ... and increase the possibility of overlap if both proceedings were to move forward.”

Hillman, Paper 8, at 12. Petitioner will have an opportunity to present a full invalidity case in district court, where the parties and the court have committed significant resources. The district court will be in the better position to efficiently evaluate invalidity given the stage. Thus, this factor also strongly favors denial of institution.

E. Factor 5 - whether the petitioner and the defendant in the parallel proceeding are the same

Here, petitioner and defendant are the same party. Pet., p. 67. Under *Fintiv*, where this is the case, this factor supports discretionary denial and more so given the trial is scheduled 10 months before the projected statutory deadline for the Final Written Decision. *Fintiv*, Paper 11, at 13-14. Furthermore, the issues in the IPR and issues to be litigated in the district court are duplicative. As Petitioner points out, this is “far from the unusual circumstance” when petitioner and defendant are the same. *Sand Revolution II LLC v. Continental Intermodal Group*, IPR2019-01393, Paper 24 at 12-13 (PTAB June 16, 2020). With the litigation scheduled for trial 10 months before the Board's final decision, this factor weighs in favor of discretionary denial.

F. Factor 6 - Other circumstances that impact the Board's exercise of discretion, including the merits.

As demonstrated above, Petitioner does not show that Larson in view of Cai and knowledge of a POSITA render obvious claims 1-8. This failure justifies denial under any standard, and certainly under the higher “compelling merits” standard, and shows Petitioner is ***not likely***, let alone “highly likely [to] ... prevail with respect to at least one challenged claim.” *Commscope Tech., LLC v. Dali Wireless, Inc.*, IPR2022-01242, Paper 23 at 4 (PTAB Feb. 27, 2023) (*citing* 35 U.S.C. § 314(a)) (*quoting* *OpenSky Indus., LLC et al. v. VLSI Tech. LLC*, IPR2021-01064, Paper 102 at 49–50 (PTAB Oct. 4, 2022) (precedential)).

There are four asserted patents in the parallel litigation. One patent is IPR time-barred. At the time of this filing, the scheduled trial is ***only five months*** away and will be ***only 2 months*** from the projected decision on institution. The final written decision would not issue until ***10 months after trial***. Petitioner offers no sign it intends to try to stay the district court litigation and, regardless, a stay is unlikely. Petitioner's stipulation falls far short of the legal standard and does essentially nothing to alleviate the substantial overlap between this IPR and the invalidity grounds before the district court. Moreover, Petitioner does not show that Larson

and Cai teach or render obvious at least two limitations of the independent claim 1.

All six *Fintiv* factors favor denial. Thus, discretionary denial is justified.

X. PETITIONER FAILED TO PRESENT SUFFICIENT EVIDENCE OR ARGUMENT TO DEMONSTRATE THAT CAI WAS PUBLICLY ACCESSIBLE

The Petitioner has not carried its burden to establish, with particularity, that the Cai paper was publicly accessible as of the publication date alleged in the Petition. Moreover, the supporting evidence of public availability presented by the Petition, at best, provides a possibility of public accessibility. However, this is not sufficient for the Petitioner to carry its burden to demonstrate public accessibility of Cai with particularity.

A. Legal Standard for Public Availability

Under the precedential *Hulu* standard, “[t]here is no presumption in favor of finding a reference to be a ‘printed publication’” and “the burden is on the petitioner” to sufficiently establish the public accessibility for a reference. *Hulu, LLC v. Sound View Innovations, LLC*, IPR2018-01039, Paper 29 at 16 (PTAB Dec. 20, 2019) (precedential). *Hulu* further requires that, “at the institution stage, the petition must identify, with particularity, evidence sufficient to establish a reasonable likelihood that the reference was publicly accessible before the critical date of the challenged

patent and therefore that there is a reasonable likelihood that it qualifies as a printed publication.” *Id.*, 13 (emphasis added).

As held by the Federal Circuit and the PTAB, “[p]ublic accessibility requires more than technical accessibility.” *Sophos Ltd. v. Open Text Inc.*, IPR2023-00731, Paper 23, pp. 9 (PTAB Nov. 2, 2023) (citing *Samsung Elecs. Co. v. Infobridge Pte. Ltd.*, 929 F.3d 1363, 1369 (Fed. Cir. 2019)) (emphasis added). To establish “public accessibility,” Petitioner must present “a satisfactory showing that such document has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence, can locate it.” *SRI Int’l, Inc. v. Internet Sec. Sys., Inc.*, 511 F.3d 1186, 1194 (Fed. Cir. 2008) (quoting *Bruckelmyer v. Ground Heaters, Inc.*, 445 F.3d 1374, 1378 (Fed. Cir. 2006)) (emphasis added); *see Sophos*, IPR2023-00731, Paper 23, pp. 8-9. “It is ‘critical’ that there be ‘some evidence that a person of ordinary skill could have reasonably found’ the reference.” *Microsoft Corp. v. Throughputer, Inc.*, IPR2022-01566, Paper 13, pp. (PTAB May 31, 2023) (quoting *Samsung*, 929 F.3d at 1369) (emphasis added).

Furthermore, the PTAB has held that “that simply pointing to a date, even a copyright date, is not sufficient at the institution stage to demonstrate public accessibility.” *Medivis, Inc. v. Novarad Corp.*, IPR2023-00042, Paper 35, p. 27

(PTAB Mar. 6, 2024) (quoting *Content Square SAS v. Medallia Inc.*, IPR2022-00316, Paper 13, pp. 26-27 (PTAB July 14, 2022)); *see also* *Microsoft Corp. v. Corel Software, LLC*, IPR2016-01083, Paper 14 at 13–14, 15 (PTAB Dec. 1, 2016) (“The copyright notice, alone, however, sheds virtually no light on whether the document was publicly accessible as of that date, therefore additional evidence is typically necessary to support a showing of public accessibility”). Additionally, the PTAB has found that showing the “copyright date” along with additional details, like “statements on the face” of the reference and citation by publications, is insufficient to establish public availability because it does not demonstrate that the reference was “disseminated or otherwise made available to those of ordinary skill in the art.” *Medivis, Inc. v. Novarad Corp.*, IPR2023-00042, Paper 37, pp. 3-4 (PTAB Apr. 23, 2024).

**B. The Petition has not Demonstrated Public
Availability of Cai Prior to the Date of the ’823
Patent**

The Petition alleges that Cai was “published October 18, 2004,” and that it was “publicly accessible no later than April 30, 2006.” Pet., p. 33. The Petition does not elaborate on or otherwise explain these conclusory assertions, and instead cites to pages 34-46 of Dr. Ingrid Hsieh-Yee’s Declaration ((Ex. 1024), “the Hsieh-Yee Declaration”). While the Hsieh-Yee Declaration is extensive, it does not present

any evidence of public availability of the Cai reference before the date of the '823 patent. Instead, it demonstrates that various library records related to Cai exist today and that they include indicators of having existed at or around the timeframe purported by the Petition. Nowhere does the Hsieh-Yee Declaration provide evidence that Cai was disseminated or otherwise made available to those of ordinary skill in the art, which is required to demonstrate public availability.

The Hsieh-Yee Declaration starts with an authentication section (§§ 57-59), which merely describes Dr. Hsieh-Yee's process for locating the Cai reference using Google Scholar, obtaining a pdf, and describing identifiers to authenticate the pdf of Cai. Ex. 1024, §§ 57-59. In this section, the Hsieh-Yee Declaration asserts that the pdf copy that was obtained is authentic, and does not allege public accessibility of Cai. As held in the *Medivis* case, the identifiers on the pdf of Cai that was obtained, including a copyright notice, does not establish public accessibility. *Medivis*, IPR2023-00042, Paper 35, p. 27 and Paper 37, pp. 3-4.

The Hsieh-Yee Declaration then goes on to discuss a printout of an ACM website record for the Cai reference (Appendix 0002A), which was generated in 2024 and which also does not demonstrate public accessibility at the time invention of the '823 patent. Ex. 1024, §§ 60-63. While this record does identify "publication" on "18 October 2004" (Ex. 1024, Appendix 0002A, p. 1) there is no evidence to

establish what “publication” on this website means and whether it would have resulted in Cai being made available to those of ordinary skill in the art back on the purported date of publication. Additionally, there is no evidence presented to demonstrate that the Cai reference that Dr. Hsieh-Yee downloaded in 2024 is the same reference that was purportedly published in 2004.

Furthermore, the Hsieh-Yee Declaration provides pure speculation that Cai would have been available and discoverable in the AMC Digital Library as of 2004 because of the AMC Digital Library was purportedly available starting in 1997. Ex. 1024, ¶ 63. Simply put, there is no evidence demonstrating what “publication” in this 2024 website printout means, let alone that it specifically references publication on the AMC Digital Library. Furthermore, there is no evidence to indicate whether publication on the AMC Digital Library in 2004 would have actually resulted in Cai being made available to those of ordinary skill in the art. Accordingly, the evidence presented in Appendix 0002A fails to demonstrate public accessibility of Cai as of the alleged publication date.

Next, the Hsieh-Yee Declaration's library records for Cai (Appendix 0002B) that also fail to provide evidence of public availability. Ex. 1024, ¶¶ 64-69. First, these records are printouts from 2024 that demonstrate their state presently, and do not even provide evidence of the state of these library records at the time of the '823

patent. In particular, these records include fields “update,” “replaced,” and “latest transaction” (MARC field 005), which indicate that the records were modified 2021 and 2024 in some manner since their “date of entry.” *See* Ex. 1024, Appendix 0002B, pp. 2, 3, 7; Ex. 2006, p. 1 (field 005 represents the “the date and time of the latest record transaction and serve as a version identifier for the record” (emphasis added)). The printouts do not provide information about all of these modifications, and the Hsieh-Yee Declaration does not address them. Accordingly, these records do not provide an accurate representation of their state at the time of the ’823 patent, and provide no evidence of public accessibility of Cai at that time.

Additionally, the Hsieh-Yee Declaration imputes significant and specific meaning into the “date of entry” fields – equating it to publication and public accessibility. Ex. 1024, ¶¶ 64-69. However, at best, these fields simply represent the date on when the library records were originally entered. There is no evidence that these records even correspond to Cai, what actually occurred on the “date of entry,” whether the “date of entry” actually corresponds to publication or instead to the creation of the library record, and whether any such publication related to the “date of entry” would have been sufficient to result in Cai being made available to those of ordinary skill in the art as of the date of entry. *See* Ex. 1024, Appendix 0002B. As a result, the Hsieh-Yee Declaration’s assertions that the library records

are proof Cai was publicly discoverable as of the date of entry is not supported by the evidence, and is pure speculation. Ex. 1024, ¶¶ 64-69. Additionally, there is no evidence that this purported discoverability alleged in the Hsieh-Yee Declaration would have actually resulted in Cai being made available to those of ordinary skill in the art.

Additionally, the PTAB has found similar library records to be insufficient to establish public accessibility. *See, e.g., Microsoft Corp.*, IPR2022-01566, Paper 13, pp. 10-16. These library records submitted by Hsieh-Yee Declaration fail to establish public accessibility of Cai for the same or similar reasons.

The Hsieh-Yee Declaration then attempts to prove that Cai was publicly available online in the ACM Digital Library as of April 30, 2006, based primarily on an internet archive record showing an index of “ACM Proceedings” in the ACM Digital Library as of this date. Ex. 1024, ¶¶ 70-74, Appendix 0002C. However, there is no evidence that the present day record in the ACM Digital Library (Ex. 1024, Appendix 0002C, pp. 1-3) was even accessible through the links provided by the index of the ACM Proceedings in 2006 (Ex. 1024, Appendix 0002C, pp. 18-23), let alone that the same Cai reference raised by Petitioner would have been available as part of that record. In spite of that, the Hsieh-Yee Declaration asserts that Cai would have been accessible as of 2006 through this site, which is not demonstrated

by the evidence and requires several unsupported leaps based on pure speculation.
Ex. 1024, ¶ 74.

Lastly, the Hsieh-Yee Declaration argues that Cai is cited on Google Scholar by 15 other references between 2005 and 2008, but fails to provide any evidence to support this assertion. Ex. 1024, ¶ 75. This lack of actual supporting evidence is insufficient to sustain a finding of public accessibility. For example, it is unclear whether these citations refer to the same Cai reference that is raised by Petitioner. Additionally, these allegations are similar to those found insufficient to establish public accessibility in *Medivis*. IPR2023-00042, Paper 37, pp. 3-4. The Hsieh-Yee Declaration's conclusion (Ex. 1024, ¶ 75) on public accessibility of Cai simply reiterates the same insufficient evidence and unsupported conclusions addressed above.

Accordingly, the Petition has failed to present sufficient evidence to establish public accessibility of Cai as of the alleged dates. Since Cai is used in the only Ground and has not been sufficiently established as a prior art reference, the Board should deny institution.

XI. CONCLUSION

For at least the reasons articulated above, the Board should deny institution. Petitioner fails to establish a reasonable likelihood the prior art references render unpatentable any challenged claim of the '823 patent.

Patent Owner does not concede any issues not addressed or raised in this Preliminary Response.

IPR2024-00922 (Patent 8,446,823)
Patent Owner's Preliminary Response

Respectfully submitted,

Date: September 20, 2024

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CERTIFICATE OF WORD COUNT

Under 37 C.F.R. § 42.24(d), the undersigned certifies that the foregoing PATENT OWNER'S PRELIMINARY RESPONSE TO PETITION has 10,664 words, which is less than the 14,000 word limit, as determined by the word count feature of the word-processing system used to prepare this paper.

/Christopher Hoff, Reg. No. 67,738/
Christopher Hoff, Reg. No. 67,738

CERTIFICATE OF SERVICE

Under 37 C.F.R. § 42.6(e), the undersigned certifies that on September 20, 2024, I caused a copy of the foregoing PATENT OWNER VIDEO SOLUTIONS PTE. LTD.'S PRELIMINARY RESPONSE TO PETITION, together with all exhibits filed therewith, to be served via e-mail on the following counsel of record for Petitioner:

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