

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NETFLIX, INC.,

Petitioner

v.

VL COLLECTIVE IP LLC,

Patent Owner

IPR2023-00891
U.S. Patent 8,605,794

PATENT OWNER'S PRELIMINARY RESPONSE

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	BACKGROUND	2
A.	Overview of the '794 Patent (EX1001)	2
B.	The Claims of the '794 Patent.....	6
C.	Overview of Comps (EX1004)	8
III.	PRIORITY DATE OF THE '794 PATENT	12
IV.	LEVEL OF ORDINARY SKILL	12
V.	RELATED MATTERS	13
VI.	CLAIM CONSTRUCTION	13
A.	Patent Owner's Claim Construction Analysis	13
1.	“content-related ... data segments”	14
2.	Preambles	19
a.	The Preambles Are Limiting	20
b.	The “First Data File” and “Second Data File” Must Be Different Data Files.....	26
VII.	PETITIONER HAS NOT SHOWN A REASONABLE LIKELIHOOD THAT IT WILL PREVAIL ON ANY OF THE CHALLENGED CLAIMS	28
A.	Comps Does Not Disclose Outputting “Each” of the Content- Related Second Data Segments Together with a Content- Related First Data Segment Based on an Assignment Rule	28
B.	Comps Does Not Disclose Outputting the Content-Related First and Second Data Segments “Sequentially” or “Chronologically”	33

VIII. POTENTIAL FOR ESTOPPEL BASED ON CONCURRENT
PROCEEDING 35

IX. CONCLUSION.....36

PATENT OWNER'S EXHIBIT LIST

Exhibit	Description
2001	Joint Claim Construction Statement in <i>VideoLabs, Inc. et al. v. Amazon.com, Inc. et al.</i> , No. 22-cv-00079-ADA-DTG
2002	VideoLabs' Answering Claim Construction Brief, <i>Starz Entertainment, LLC et al. v. VL Collective IP, LLC et al.</i> , No. 21 -cv-1448-JLH (excerpted)
2003	Markman Hearing Transcript, <i>Starz Entertainment, LLC et al. v. VL Collective IP, LLC et al.</i> , No. 21-cv-1448-JLH

VL Collective IP LLC (“Patent Owner”) submits this Preliminary Response to the Petition of Netflix, Inc. (“Petitioner”) seeking *inter partes* review (“IPR”) of U.S. Patent No. 8,605,794 (“the ’794 patent”).

I. INTRODUCTION

The ’794 patent is concerned with how to efficiently synchronize segments of separate audio and video data streams once they are received at a client device (e.g., a television or mobile device), a process that had historically been slow and resource-intensive. The inventors improved upon the known arts by using “assignment rules” to create relationships between the audio and video segments that can be applied quickly and flexibly to synchronize content. Importantly, these synchronization techniques apply to ***all*** the data segments in at least one of the data streams, and ensure that ***all*** the data segments are output sequentially and chronologically.

By contrast, the Petition’s primary reference, Comps, seeks to make the synchronization of multiple data tracks more efficient by only synchronizing “important” events in the multimedia. Comps thus does not have an “assignment rule” that applies to “each” data segment of a data file; it instead disclosed SYNCH commands that are executed intermittently. And, because the data synchronization occurs only periodically, Comps accepts that some content will be presented out of synch, and that “unimportant” events in the multimedia may be skipped in their

entirety. As a result, the data in Comps is presented neither sequentially nor chronologically.

At least because of these differences between Comps and the '794 patent, institution should be denied.

II. BACKGROUND

A. Overview of the '794 Patent (EX1001)

In the early 2000s, the inventors of the '794 patent realized that the way audiovisual content (e.g., television shows and movies) was transmitted to consumers was fundamentally changing. For decades, content was transmitted to consumers primarily through televisions, and, within each global region (e.g., the United States), was encoded in a single formatting standard (e.g., the NTSC standard) that could be played by all televisions. (EX1001, 1:23-33.)

But with the increasing importance of the Internet, the devices to which content could be transmitted were proliferating. (*Id.*, 1:34-43.) Content could now be streamed to computers, laptops, PDAs, and other electronic devices that could play content encoded in any number of formats based on their capabilities. (*Id.*)

The varying strength of Internet connections, particularly on wireless devices, also necessitated multiple content formats. (*Id.*, 1:34-43, 1:64-2:20.) For example, while a desktop computer might be capable of playing high resolution content, doing so is not desirable if the Internet connection for that computer is slow. Instead, it can

be a better viewer experience for a lower quality version of the content to be transmitted more quickly rather than having the user constantly waiting for higher quality content to download.

The inventors also knew there were benefits to being able to change the quality of the content during a stream. (*Id.*, 1:64-2:20.) When an Internet connection is weak, send lower quality content; when the connection is strong, send higher quality content.

These changes in technology and consumer expectations led to new techniques for managing and processing audiovisual content. Content was no longer stored as a single file in a single location. Instead, the various versions of a movie's audio and video data files were broken up into numerous "segments" stored on various Internet servers. (*Id.*, 1:44-2:20 (describing using metadata languages such as XML to define segmented data streams).) These segments were more quickly transmitted over the Internet to consumer devices, and content could be played as soon as the first few segments arrived instead of waiting for the entire file to download.

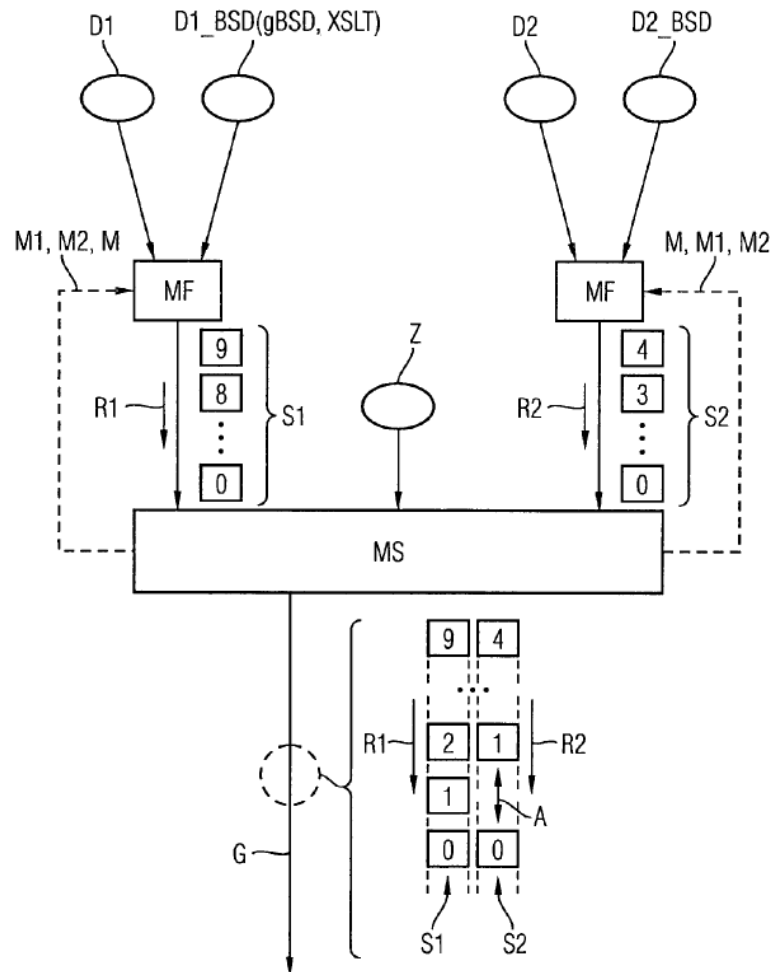
Prior to the innovations of the '794 patent, however, there was not a suitable method for aligning the various segments from their respective audio and video data files. The need was all the greater when switching between audio or video formats midstream (e.g., to account for changing Internet bandwidth) or skipping to different

points within a piece of content. (*Id.*, 1:56-2:9.) Techniques existed but had large overhead and could be slow and resource intensive. (*Id.*, 2:4-12.) These old techniques generally used timestamps or other exact timing information to synchronize the data segments. (*Id.*, 2:4-12, 42-43.) The '794 patent improves upon prior technologies. It describes a novel technique that uses “assignment rules” to govern the order and alignment of data segments. More specifically, assignment rules flexibly define relationships between data segments from one data file (e.g., an audio file) and data segments of another data file (e.g., a video file). Assignment rules enable data segments from different data files to be efficiently output sequentially, chronologically, and synchronously. (*Id.*, 2:36-3:3, claims 1, 9.) These assignment rules do not use timestamps or other exact timing information. (*Id.*, 2:42-43.)

Figure 1 of the '794 patent demonstrates the operation of an exemplary assignment rule. **D1** represents a video data file that is fragmented into video data segments numbered **0** through **9**. (*Id.*, 3:67-4:53.) **D2** represents an audio data file, which is fragmented into segments numbered **0** through **4**. (*Id.*, 3:67-4:53, 5:5-9.) That there are 10 video segments and only 5 audio segments could indicate that the audio segments are twice as long timewise as the video segments or that the total duration of every set of 2 video segments is the same as the duration of each consecutive audio segment. The precise duration of any individual data segment,

and the absolute point in time at which any given data segment is output, need not be known for the synchronization techniques of the '794 patent to operate.

Rather, the assignment rule in Figure 1 requires that each audio data segment is assigned to every second video data segment, which is sufficient to maintain the proper alignment between the audio and video segments. During synchronization, audio segment **0** is output together with video segment **0**; video segment **1** comes next; then audio segment **1** is output together with video segment **2**; and so forth, until audio segment **4** is output together with video segment **9**. (*Id.*, 4:54-5:4;)



(*Id.*, Fig. 1.) Additional assignment rules are described in the specification; the assignment rule of the '794 patent can take many forms, including equations that describe the relationship between segments, and lists that align corresponding segments. (*Id.*, 5:35-6:42, Figs. 2, 4-5.)

B. The Claims of the '794 Patent

Exemplary independent claims 1, 9, and 22 are shown below:

1[pre] A method for synchronizing content-related first data segments of a first data file and content-related second data segments of a second data file, the method comprising:

1[a][1] sequentially outputting, by a device for synchronizing content-related data, the content-related first data segments and the content-related second data segments according to their chronological sequence in such a way that, and

1[a][2] each of the content-related second data segments is output together with an associated one of the content-related first data segments on the basis of an assignment rule for assigning each one of the content-related second data segments to one of the content-related first data segments.

9[pre] A device for synchronizing content-related first data segments of a first data file and content-related second data segments of a second data file, comprising:

9[a][1] a synchronization device configured to output each of the content-related first data segments and the content-related second data segments, sequentially, according to their chronological sequence, and

9[a][2] each of the content-related second data segments being output together with an associated one of the content-related first data segments based upon of an assignment rule for assigning each one of the content-related second data segments to each one of the content-related first data segment.

22[pre] A method for synchronizing content-related first data segments of a first data file and content-related second data segments of a second data file, the method comprising:

22[a][1] determining an order for the content-related first data segments to be read out from the first data file and an order for the content-related second data segments to be read out from the second data file,

22[a][2] the content-related first data segments being ordered according to corresponding first content-related markers and the content-related second data segments being ordered according to corresponding second content related markers;

22[b] assigning, according to an assignment rule, each of the ordered content-related second data segments that are read out from the second data

file with a corresponding one of the ordered content-related first data segments that are read out from the first data file; and

22[c] sequentially outputting, by a device for synchronizing content-related data, in a chronological sequence, each of the assigned content-related first data segments and the assigned content-related second data segments.

(EX1001 at claims 1, 9, 22.)

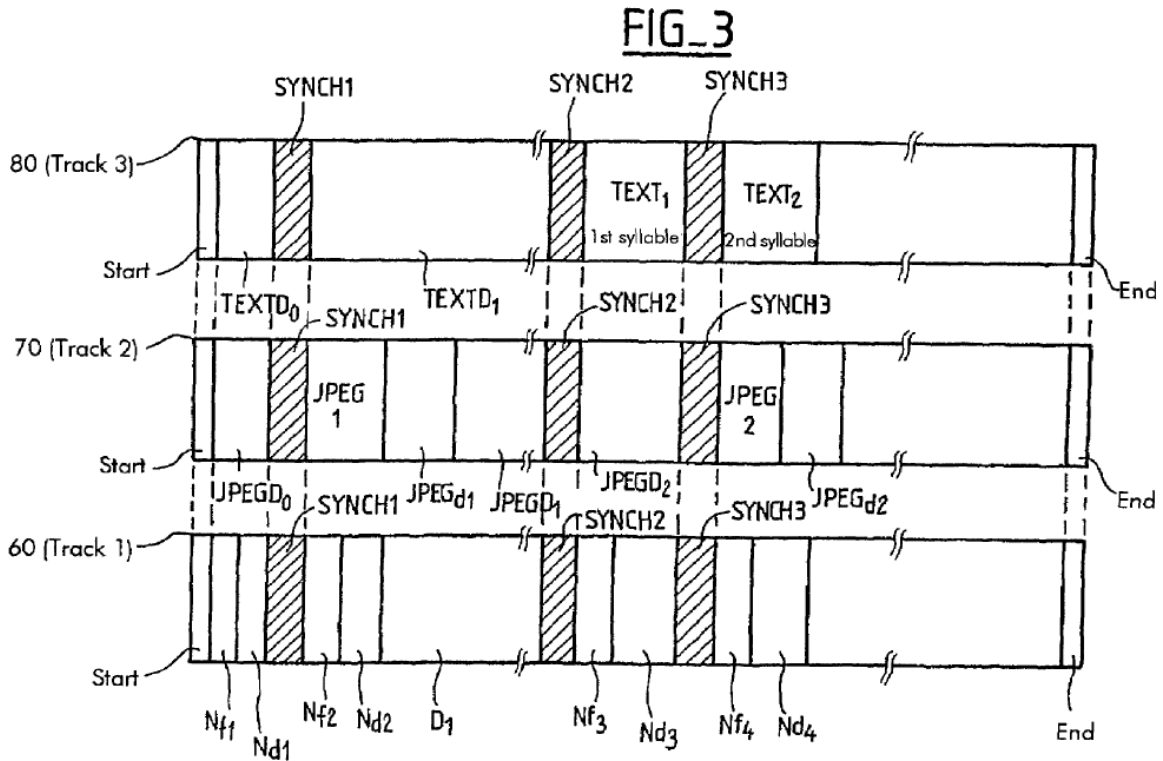
C. Overview of Comps (EX1004)

Comps discloses the use of SYNCH commands to ensure that “important” multimedia events are presented synchronously (e.g., that a certain sound effect is made at exactly the same time that a certain image is displayed). (EX1004, Abstract, 2:6-34.) More specifically, Comps describes a multimedia file that may contain multiple tracks of data. (*Id.*, 2:42-57, Figs. 2, 3.) Each track may consist of “sound, text or picture” data as well as “time” data, and the data in each track is stored in timewise order. (*Id.*, 2:43-64, Fig. 3.) The tracks are intended to be presented simultaneously, and so a different processor is used to scan and output the data for each track. (*Id.*, 2:60-67.)

Because of differences in the frequency of the processors, the data in the different tracks will fall out of alignment over time. (*Id.*, 1:26-40, 4:25-57.) Comps uses SYNCH commands to periodically restore synchronicity across the tracks. Specifically, Comps categorizes the presentation of certain data within the tracks

(e.g., picture, sound, or text data) as “important” events. (EX1004, 2:6-23.) All other data in the tracks correspond to “unimportant” events. (*Id.*) Comps then uses SYNCH commands to ensure synchronicity for the important events and accepts that there may not be synchronicity for the unimportant events. (*Id.*, 2:6-34, 4:25-57.) This limited synchronization of the data in the tracks is a touted benefit of Comps, as it reduces the number of synchronization commands as compared with other existing techniques. (*Id.*, 1:41-2:34.) It also ensures that important events are not interrupted or skipped due to a forced synchronization. (*Id.*, 1:41-2:34, 4:25-57.)

Figure 3 below shows an exemplary multimedia file of Comps that consists of three tracks (Track 1, Track 2, Track 3). Each track consists of three types of “fields”: (1) audio, picture, or text data (e.g., N_{fl} , $JPEG_1$, $TEXT_1$); (2) timing data (e.g., N_{d1} , D_1 , $JPEGD_0$, $JPEG_{d1}$, $TEXTD_0$); and (3) SYNCH commands (e.g., SYNCH1, SYNCH2).



(EX1004, Fig. 3.)

In Track 1, N_{f1} is the first field, followed by N_{d1} . N_{f1} indicates the frequency of a first note, while N_{d1} indicates its duration. (*Id.*, 3:22-30, Fig. 3.) The SYNCH1 command is the next field. It is followed by important event N_{f2} and then N_{d2} , which indicate the frequency and duration of a second note, respectively. (*Id.*) Then comes D_1 , which represents a time duration during which no audio is played. (*Id.*) Squiggly lines in the D_1 event indicate that there may be additional events before the next important event, N_{f3} . (*Id.*) N_{f3} represents a third note and N_{d3} represents its duration. (*Id.*) It is preceded by the SYNCH2 command. (*Id.*) The SYNCH3 command follows N_{d3} and indicates that a fourth note, N_{f4} , is an important event. (*Id.*) N_{f4} has a duration N_{d4} . (*Id.*) It is followed by any number of important and unimportant

events (as indicated by the squiggly lines in the unlabeled final block of Track 1).

(*Id.*) Track 1 then concludes.

Track 2 similarly contains a variety of fields, including important events (JPEG₁, JPEGD₂, JPEG₂) and unimportant events (JPEGD₀, JPEG_{d1}, JPEGD₁, JPEG_{d2}). (*Id.*, 3:31-37, Fig. 3.) Same for Track 3. (*Id.*, 3:38-44, Fig. 3 (describing important events (TEXTD₁, TEXT₁, TEXT₂) and unimportant events (TEXTD₀)).) Notably, the SYNCH commands appear at the same point in time in each track. (*Id.*)

During playback, the fields in each track are generally executed from left to right. (*Id.*, 3:48-4:57, Fig. 3.) Track 1 is considered the “master” track and Tracks 2 and 3 are the “slave” tracks. (*Id.*) The SYNCH commands ensure that the fields in slave tracks that are *intended* to be output in synchronicity with the master track’s important fields are *actually* executed at the same time as the corresponding fields in the master track. (*Id.*, 3:42-4:24.)

To achieve this synchronicity, when the microprocessor for the master track reaches a SYNCH command, it sends synchronization data to the microprocessors for the slave tracks. (*Id.*, 4:25-28.) At that point, for each slave microprocessor, “[t]wo situations arise:”

If, at the moment it receives data, the slave microprocessor dedicated to track *i*, which is lagging behind, has not yet encountered the field SYNCH₁ in track *i*, it continues to scan its file *without executing the*

commands encountered, in order to reach the field SYNCH1 as quickly as possible. It then resumes execution of commands encountered after the field SYNCH1.

If, before receiving the data, the slave microprocessor dedicated to track i had already reached the field SYNCH1, it stops reading the fields of track i until it receives the first synchronization data sent by the master microprocessor. It then resumes reading the fields of track i and executes the commands described.

(*Id.*, 4:30-43 (emphasis added).)

Comps thus describes the use of SYNCH commands to synchronize important events across tracks in a multimedia file. The use of SYNCH commands may result in some fields being skipped entirely.

III. PRIORITY DATE OF THE '794 PATENT

Petitioner assumes a priority date of April 12, 2005 for the '794 patent. (Pet., 13.) Patent Owner reserves all rights to establish its preferred priority date, but for purposes of its Preliminary Response, does not dispute this assumed priority date.

IV. LEVEL OF ORDINARY SKILL

Petitioner sets forth a level of ordinary skill. (Pet., 13.) Patent Owner reserves the right to dispute Petitioner's definition if an IPR is instituted. For present

purposes, this Preliminary Response establishes that Petitioner's arguments fail even under its preferred definition of the level of ordinary skill.

V. RELATED MATTERS

Patent Owner is presently asserting the '794 patent in the following district court actions:

- *Starz Entertainment, LLC et al. v. VL Collective IP LLC et al.*, No. 21-cv-1448-JLH (D. Del.)
- *VideoLabs, Inc. et al. v. Netflix, Inc.*, No. 22-229-JHS (D. Del.)
- *VideoLabs, Inc. et al. v. Roku Inc.*, No. 23-cv-01136-JHS (D. Del.)

The '794 patent is involved in the following IPR:

- *Unified Patents, LLC v. VL Collective IP, LLC*, IPR2022-01086

VI. CLAIM CONSTRUCTION

A. Patent Owner's Claim Construction Analysis

Petitioner has not presented a proposed construction for any of the terms. Patent Owner offers two constructions. Patent Owner's first construction reflects the express lexicography of the inventors. The second results from the application of well-established case law that governs when preambles are limiting and when the use of "first" and "second" indicate distinct instances of a claim element. To the extent that the Board does not agree with the Patent Owner's offered constructions, Patent Owner submits that this Petition still fails. Patent Owner reserves the right to

revise its proposed constructions and assert additional constructions should the Petition be instituted.

1. “content-related ... data segments”

Term	Patent Owner’s Proposed Construction
“content-related ... data segments” (Claims 1, 9, 22)	data segments ordered in a file such that they will present the file's contents in their intended presentation order when rendered sequentially

The inventors acted as their own lexicographers and set forth a definition of “content-related ... data segments,” which Patent Owner's proposed construction reflects. In the Detailed Description section of the specification defines the term “content-related” as it applies to data segments of a data file:

For every first and second data file D1, D2 there exists in each case a fragmentation description file D1_BSD, B2_BSD. Said fragmentation description file D1_BSD, B2_BSD specifies how content-related first and content-related second data segments S1, S2 can be obtained from the respective first and second data file D12, D2. *The term “content-related” is understood to mean that first and second data segments have a syntactical meaning within the respective data file*, such as e.g. a plurality of succeeding second data segments represent the speech signal of a specific speaker within a dialog sequence.

(EX1001, 4:9-22 (emphasis added).)

When a term in the specification “is set off by quotation marks,” as here, it is “often a strong indication that what follows is a definition.” *Sinorgchem Co., Shandong v. Int’l Trade Comm’n*, 511 F.3d 1132, 1136 (Fed. Cir. 2007). “Moreover, the word ‘is,’ again a term used here in the specification, may ‘signify that a patentee is serving as its own lexicographer.’” *Sinorgchem*, 511 F.3d at 1136 (internal citations omitted). Additionally, the Federal Circuit has held that the specification expressly defines a term when it states what the term “shall be understood to mean.” *Chevron U.S.A. Inc. v. Univ. of Wy. Research Corp.*, 978 F.3d 1361, 1366 (Fed. Cir. 2020). There are thus three strong indications of lexicography: (1) “content-related” is set off by quotation marks; (2) the patentee used the word “is” to describe the term “content-related”; and (3) the patentee states what “content-related” is “understood to mean.”

Patent Owner’s construction reflects the inventors’ definitional language. For clarity, Patent Owner’s construction describes what it means for data segments to have a “syntactical meaning” within a data file, as explained in the patent:

The term “content-related” is understood to mean that first and second data segments have *a syntactical meaning within the respective data file*, such as e.g. *a plurality of succeeding second data segments represent the speech signal of a specific speaker within a dialog*

sequence. Furthermore, *sections of the data file* can also be understood thereby, such as e.g. *individual images of a video sequence*. In the following description data segments always refer to content-based data segments.

By the first data segments S1 is meant *data segments of the first data file D1* which have a content-related meaning for the first data file D1, such as e.g. *individual images in a video sequence* or *individual spoken words in an audio sequence*.

In this case the chronological sequence identifies that sequence of individual first data segments S1 in which, for example, the latter are played back visually or made audible. For example, *one data segment contains the word “Good” and a further data segment the word “Morning”, so the data segment containing “Good” is output first, and then the data segment containing “Morning”*.

(EX1001, 4:14-22, 49-60 (emphases added).)

The specification makes clear, through its use of consistent and repeated examples, that “syntactical meaning” requires a specific relationship between the data segments within a data file: *succeeding* data segments within a data file must be ordered so as to present the content in its intended *sequence* when rendered.

VirnetX Inc. v. Cisco Sys., Inc., 767 F.3d 1308, 1317-19 (Fed. Cir. 2014); *Alloc, Inc. v. ITC*, 342 F.3d 1361, 1368-71 (Fed. Cir. 2003).

Thus, if a speaker in a movie scene says “Good Morning,” the corresponding audio data segments for that sequence will be ordered within the audio data file so that the “Good” audio segment is before the “Morning” data segment. Similarly, for the corresponding video sequence, the video data segment where the speaker mouths the word “Good” comes before the segment where the speaker mouths “Morning.” It is this purposeful ordering of data segments that makes them “content-related” and provides them with a “syntactical meaning” within their “respective data file.” Patent Owner’s construction captures these relationships between the data segments and their respective files by including their sequential, chronological nature.

The claims further support Patent Owner’s construction. Independent claims 1 and 9 require outputting the data segments “sequentially” and “according to their chronological sequence.” (EX1001, claims 1, 9.) It is only by organizing data segments within their data files in the intended presentation order — *i.e.*, the “Good” audio segment is before the “Morning” audio segment — that outputting the segments sequentially will also result in the segments being output chronologically. The examples in the specification further buttress this lexicography. (*Id.*, Figs. 1-2, 4:23-5:9 (processing the data segments in each data file sequentially, which maintains the chronological order of the content); Fig. 5, 6:4-27 (same).)

This definition of “content-related . . . data segments” also makes sense in view of the problems the invention solved. While some media synchronization techniques are used to *create* content for the first time (e.g., splicing together various film sequences and audio samples to generate a movie), the ’794 patent is used to *maintain* the proper order of previously-existing content (e.g., re-assembling the audio and video data segments that make up a television broadcast). (*Id.*, 1:34-2:3, 3:65-4:8 (describing known problems with traditional television broadcasts and other “data streams” that have an intended, chronological order that needs to be maintained by the device receiving the content).) Patent Owner’s construction thus captures the meaning assigned to the term by the inventors.

The claim construction proceedings in the related district court cases further support this understanding. While Patent Owner and the opposing parties in those litigations did not fully agree on the construction of this term, as here, there was unanimous agreement that “content-related . . . data segments” is defined in the ’794 patent and that it requires such data segments to have a “syntactical meaning within the respective data file.” (EX2001, 4; EX1017, 9-10.) The only Court to construe

this term also agreed construing the term to mean “segments of content data that have a syntactical meaning within the respective data file.”¹ (EX1019, 4.)

Thus, while Patent Owner’s construction most accurately reflects the meaning afforded to it by the inventors and should be adopted, if the Board is not inclined to resolve what it means for data segments to have a “syntactical meaning” within a data file, then the Board should construe this term as “data segments that have a syntactical meaning within the respective data file.”

2. Preambles

Term	Patent Owner’s Proposed Construction
Preamble (Claims 1, 9, 22)	The preambles are construed to be limiting. The first data file and the second data file are distinct from each other.

¹ In its oral order, the Court noted it was adopting its construction “without prejudice to either side raising the issue of what that definition means in conjunction with its summary judgment briefing, which at that point will hopefully shed some light for the Court on what the dispute is here.” (EX2003, 112:1-6.) The Court thus has not resolved the meaning of “syntactical meaning” and may do so at summary judgment. (*Id.*, 110:2-112:12.)

There are two claim construction issues related to the Preambles of claims 1, 9, and 22 of the '794 patent: (1) whether the preambles are limiting; and (2) whether the “first data file” and the “second data file” must be different data files.

a. The Preambles Are Limiting

For independent claims 1, 9, and 22, the preambles are limiting because they provide antecedent basis for multiple terms in the bodies of the claims, provide necessary structure for the claimed inventions, and capture the essence of the invention.

“Whether a preamble is limiting is ‘determined on the facts of each case in light of the overall form of the claim, and the invention as described in the specification and illuminated in the prosecution history.’” *Bio-Rad Labs., Inc. v. 10X Genomics Inc.*, 967 F.3d 1353, 1369 (Fed. Cir. 2020) (quoting *Applied Materials, Inc. v. Advanced Semiconductor Materials Am., Inc.*, 98 F.3d 1563, 1572-73 (Fed. Cir. 1996)). “No litmus test defines when a preamble limits claim scope. Some guideposts, however, have emerged from various cases discussing the preamble’s effect on claim scope.” *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (citation omitted).

“[D]ependence on a particular disputed preamble phrase for antecedent basis may limit claim scope because it indicates a reliance on both the preamble and claim body to define the claimed invention.” *Id.*; *Eaton Corp. v. Rockwell Int’l Corp.*, 323

F.3d 1332, 1339 (Fed. Cir. 2003) (“When limitations in the body of the claim rely upon and derive antecedent basis from the preamble, then the preamble may act as a necessary component of the claimed invention.”). Further, “[a] preamble limits the claimed invention if it recites essential structure or steps, or if it is ‘necessary to give life, meaning, and vitality’ to the claim.” *Bio-Rad*, 967 F.3d at 1369 (citation omitted). Likewise, when the preamble is essential to understand limitations or terms in the claim body, the preamble limits claim scope. *Catalina*, 289 F.3d at 808. “On the other hand, ‘[i]f the body of the claim sets out the complete invention,’ then the language of the preamble may be superfluous.” *Eaton*, 323 F.3d at 1339 (citation omitted); *Boehringer Ingelheim Vetmedica, Inc. v. Schering-Plough Corp.*, 320 F.3d 1339, 1345 (Fed. Cir. 2003) (“[A] preamble simply stating the intended use or purpose of the invention will usually not limit the scope of the claim, unless the preamble provides antecedents for ensuing claim terms and limits the claim accordingly.”) (citing *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1350 (Fed. Cir. 1998)).

The preambles of independent claims 1 and 9 each provide antecedent basis for two sets of claim terms. First, the preambles recite “content-related first data segments” and “content-related second data segments.” (EX1001, claims 1, 9.) The bodies of both claims then refer back to these claim elements, as they recite “*the* content-related first data segments” and “*the* content-related second data segments.”

(*Id.* (emphasis added).) Many dependent claims also rely on the preambles of claims 1 and 9 for antecedent basis for these terms. (*Id.*, claims 2-4, 6, 10, 11.) This supports that the preambles limit both the independent and dependent claims.

Second, the preambles provide antecedent basis for the terms “first data file” and “second data file.” The term “content-related . . . data segments” has been expressly defined in the ’794 patent to mean “data segments that have a syntactical meaning within *the respective data file*.”² (EX1001, 4:9-22 (emphasis added); *supra*, Section VI.A.1.) Thus, through the definition of “content-related . . . data segments,” the bodies of claims 1 and 9 refer to “the respective data file” for “the content-related first data segments” and “the respective data file” for “the content-related second data segments.” The antecedent basis for each “respective data file” is provided in the preamble, which recites “content-related first data segments *of a first data file*” and “content-related second data segments *of a second data file*.” (EX1001, claims 1, 9 (emphasis added).)

The preambles’ “first data file” and “second data file” also provide antecedent basis for dependent claims 5, 13, 18, and 19. (EX1001, claims 5, 13, 18, 19.) The

² While Patent Owner’s construction elaborates on the meaning of “syntactical meaning” for clarity (*supra*, Section VI.A.1), it maintains the express definition’s relationship between the data segments and the respective data file.

way the data files are referenced in these dependent claims presumes that they are already-existing claim limitations. Claims 18 and 19 state that “the assignment rule is maintained in *a* file separate from *the* first data file and *the* second data file.” (*Id.*, claims 18, 19 (emphasis added).) Claims 18 and 19 thus introduce a new file (“*a* file”) that contains the assignment rule that is distinct from already-existing files (“*the* first data file” and “*the* second data file”), which are the source of the first and second content-related data segments. (*Id.* (emphasis added).) That the first and second data files are understood to be preexisting in claims 18 and 19 demonstrates the inventors’ intent for their introduction in the preambles of claims 1 and 9 to be limiting.

The preambles of claims 1 and 9 provide antecedent basis for four claim terms that are used in the bodies of the claims, which is strong evidence that the preambles are limiting. *Bio-Rad*, 967 F.3d at 1369 (finding that the preamble providing antecedent basis for two terms in the body of the claim “is a strong indication that the preamble acts ‘as a necessary component of the claimed invention.’”)

The preambles are also limiting for a separate, commonsense reason: “data segments” cannot exist in a vacuum. A “segment” is necessarily part of a larger *something*, from which the segment is apportioned. Referring to a “data segment” without knowing what was segmented to create it would be like walking to a deli counter and saying, “I’ll have a piece.” That just begs the question: A piece of *what*?

The preambles resolve that question. The “content-related first data segments” come from “a first data file,” and are synchronized with the “content-related second data segments” that are being synchronized come from “a second data file.” (EX1001, claims 1, 9, and 22.) The preambles’ recitations of the relationship between the content-related data segments and their respective data files provide essential structure for the claimed inventions. *See Shoes by Firebug LLC v. Stride Rite Children’s Group, LLC*, 962 F.3d 1362, 1365-69 (Fed. Cir. 2020) (finding preamble limiting where it introduced “footwear” and the body of the claim referred to this essential structure as “the footwear”).

The preambles should also be found to be limiting because they set out the relationships between the content-related data segments and their respective data files, and these relationships are part of the “essence of the invention.” *Boehringer*, 320 F.3d at 1345 (“[P]reamble language will limit the claim if it recites not merely a context in which the invention may be used, but the essence of the invention without which performance of the recited steps is nothing but an academic exercise. This principle holds true here, as it frequently does for method claims[.]”).

The inventors expressly define “content-related . . . data segments” in the context of the data files from which they were obtained. (EX1001, 4:9-22.) Moreover, every embodiment disclosed in the ’794 patent describes synchronizing data segments that came from corresponding data files. (EX1001, 3:65-7:3

(describing various uses of assignment rules in relation to content-related data segments fragmented from data files D1 and D2), Figs. 1-3 (referencing the data files D1 and D2); *see also id.*, 7:4-20, Fig. 4 (describing embodiments with content-related data segments from more than two data files).) The relationship between the content-related data segments and their respective data files (plural) is even mentioned in the Title, further demonstrating that they were viewed by the inventors as core to the invention. (*Id.*, Title (“Method for Synchronizing Content-Dependent Data Segments of Files”).) Additionally, claims 1, 9, and 22 identify the very purpose of the claims: “synchronizing,” and the body of the claim describes how the synchronizing is performed.

Because the preamble is not just a context in which the invention operates, but is essential to the invention, it is limiting. *Boehringer*, 320 F.3d at 1345 (finding that the preamble was limiting because “‘growing’ and ‘isolating’ are not merely circumstances in which the method may be useful, but instead are the *raison d'être* of the claimed method itself”); *Applied Materials*, 98 F.3d at 1572-73 (finding the preamble limiting because “[t]he term ‘cold purge’ has its roots in the specification” and was central to the problem being solved).

Finally, in the two related district court cases in which there have been claim construction proceedings, all parties agreed that the preamble is limiting. (EX2001, 4; EX2002, 22.) That multiple, sophisticated parties that have an interest in

vigorously litigating the '794 patent (Amazon.com and Starz Entertainment) agreed that the preambles are limiting is notable.

b. The “First Data File” and “Second Data File” Must Be Different Data Files

Within the preambles, “a first data file” and “a second data file” are set forth as separate limitations and so should be required to be met by distinct data files. Indeed, “[t]he use of the terms ‘first’ and ‘second’ is a common patent-law convention to distinguish between repeated instances of an element or limitation.” *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1371 (Fed. Cir. 2003) (citing *Anchor Wall Sys., Inc. v. Rockwood Retaining Walls, Inc.*, 340 F.3d 1298, 1304 (Fed. Cir. 2003) (“first” and “second” sidewall surfaces understood to be different surfaces)); *Springs Window Fashions LP v. Novo Indus., L.P.*, 323 F.3d 989, 992 (Fed. Cir. 2003) (“first” and “second” opposed ends understood to be different ends).

Patent Owner’s request for clarification that the first data file and second data file are different data files is based on well-trodden Federal Circuit law. *Gillette Co. v. Energizer Holdings, Inc.*, 405 F.3d 1367, 1373 (Fed. Cir. 2005) (“The claim is thus clearly not using the ordinals—first, second, third— to show a consecutive numerical limit *but only to distinguish or identify the various members of the group.* The case law of this court supports this reading of the claim language ‘first, second, and third.’”) (emphasis added) (citing *3M Innovative*, 350 F.3d at 1371). Also, there

is abundant evidence that the inventors understood their invention to be about synchronizing content-related data segments from two separate data files. ('794 patent, 3:65-7:20, Figs. 1-4, Title; *supra*, Section VI.A.2.a.) And in the related district court litigations, all parties agreed on this claim construction issue — the first and second data file are distinct. (EX2001, 2; EX2002, 22).

The first and second “content-related . . . data segments” do not exist in a vacuum, but rather, are expressly defined in the context of the data files from which they were created. (*Supra*, Section VI.A.1.) Thus, while it is content-related data segments that are output together according to an assignment rule, and not the files themselves, the *effect* of synchronizing the data segments is that the data files are synchronized. Indeed, that is the *purpose* of the invention. The '794 patent addresses the challenge of efficiently and flexibly streaming video content, such as television broadcasts. (EX1001, 1:23-2:12.) Such content is maintained in data files, not an assortment of disconnected data segments. (*Id.*) Data files are thus central to the invention. The term “data file” is part of every disclosed embodiment and appears in the '794 patent 60 times, including in the Title, Abstract, and all claims. (*Id.*, 3:65-7:20, Figs. 1-4, Title, Abstract, claims.)

For all these reasons, the “first data file” and “second data file” should be required to be distinct data files.

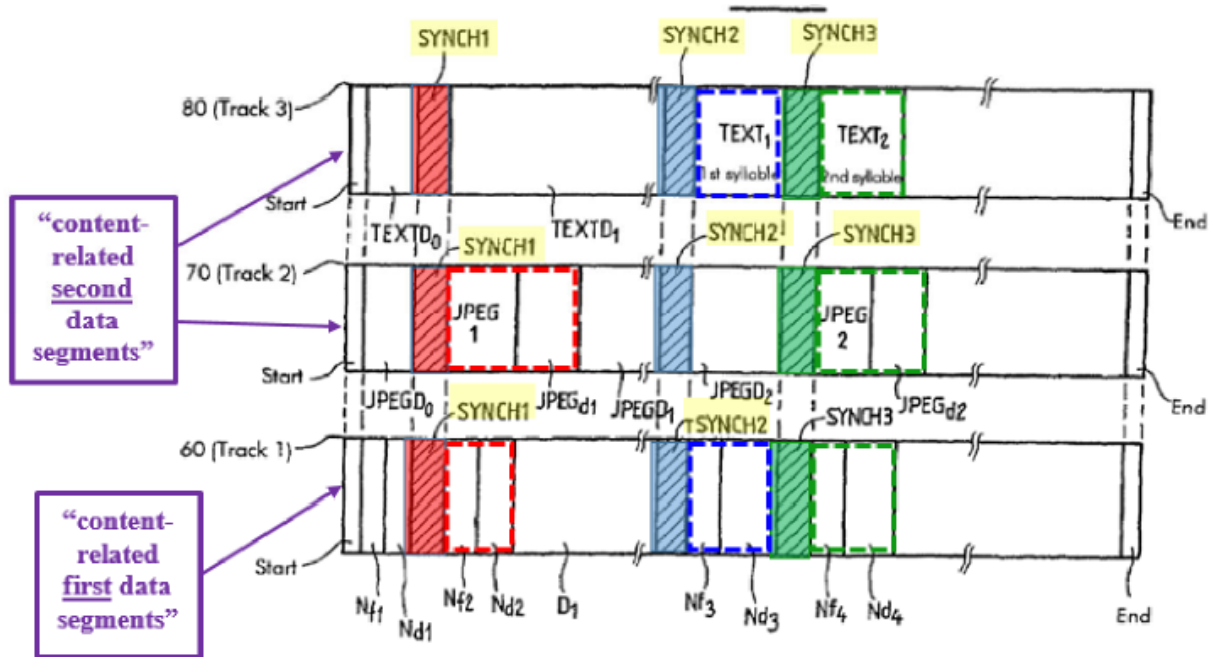
VII. PETITIONER HAS NOT SHOWN A REASONABLE LIKELIHOOD THAT IT WILL PREVAIL ON ANY OF THE CHALLENGED CLAIMS

A. Comps Does Not Disclose Outputting “Each” of the Content-Related Second Data Segments Together with a Content-Related First Data Segment Based on an Assignment Rule

Comps discloses techniques for synchronizing *some* events in a first track (i.e., the important events) with events of a second track using SYNCH commands. By contrast, every petitioned claim requires synchronizing *each* data segment in a first data file with data segments of a second data file using an assignment rule. (EX1001, claims 1, 9, 22.) Because Comps is fundamentally about synchronizing a *subset* of events in a track instead of *each* event (which Petitioner equates to the claimed “data segments”), the Petition fails.

As shown in the figure below, which is excerpted from the Petition, Petitioner points to certain fields that are executed following SYNCH commands and asserts that this meets the limitations of outputting “each” data segment based on an assignment rule. (Pet., 30-35; *see also* EX1004, Fig. 3.) Specifically, Petitioner identifies JPEG1/JPEG_{d1} and JPEG2/JPEG_{d2} as the “content-related second data segments” (or alternatively TEXT1 and TEXT2). (Pet., 27-28.) But these events are just a subset of the events that constitute their respective tracks (which Petitioner maps to the claimed “data file[s]”). (*Id.*) The events JPEGD₀, JPEGD₁, and JPEGD₂ in Track 2 (or TEXTD₀ and TEXTD₂ in Track 3) are not identified as content-related

data segments, and are not output together with events in Track 1 on the basis of a SYNCH command.



(Pet., 34 (depicting EX1004, Comps, Fig. 3 (annotations added by Petitioner))).

Petitioner does not explain why it cherry picks certain events in each track and ignores others. *Idacon, Inc. v. Cent. Forest Prods.*, No. 82-158-C, 1986 U.S. Dist. LEXIS 26297, at *40 (E.D. Okla. Apr. 25, 1986) (“The complicated calculation procedure proffered by defendant to explain its theory of anticipation reveals unacceptable picking, choosing, and discarding of various pieces of information.”); *see also Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359 (Fed. Cir. 2008) (*citing In re Arkley*, 455 F.2d 586, 587 (CCPA1972) (stating that the prior art reference must “clearly and unequivocally disclose the claimed [invention] or direct [POSAs] to [it] without any need for picking, choosing, and combining various disclosures

not directly related to each other by the teachings of the cited reference.”) Nor does Petitioner explain how relying on a disjointed subset of the events in the tracks could possibly meet the requirement that “each” content-related second data segment of a data file be output on the basis of an assignment rule.

Though Petitioner does not expressly say so, Petitioner appears to take the position that certain events are “content-related . . . data segments” while other events are not. In particular, Petitioner appears to contend that certain sound, text, and picture fields (e.g., N_{d2} , JPEG₁, TEXT₁), as well as the durations of those fields (e.g., N_{d2} and JPEG_{d1}), are “content-related . . . data segments,” while other duration information is not (e.g., D_1 , JPEGD₁, TEXTD₁). (*Id.*, 14, 27-28, 36.)

There is no valid basis to draw these distinctions. Comps describes all types of track information as “events,” “fields” and “data.” (EX1004, 2:43-51, 3:20:42.) And while Comps does distinguish between important and unimportant events, any type of event can fall in either category. And Petitioner does not rely on the distinction between important and unimportant events, as Petitioner includes and excludes both types of events from its mapping of “content-related . . . data segments.” (Pet., 13-14, 27-28, 36 (e.g., JPEG_{d1} and JPEGD₁ are unimportant events and are included and excluded, respectively, and JPEG₁ and JPEGD₂ are important events and are included and excluded, respectively).)

Moreover, in identifying events as “content-related . . . data segments” or not, Petitioner is inconsistent. Petitioner identifies timing events that correspond to the duration of a note or image as “content-related . . . data segments” (e.g., N_{d2} and $JPEG_{d1}$), but then apparently does not view timing events that correspond to the duration of the absence of a note, image, or text (e.g., D_1 , $JPEGD_1$, $TEXTD_1$) as “content-related . . . data segments.” There is no logic to this distinction.

In presenting multimedia content, knowing how long to wait before playing the next note or displaying the next image is just as important as knowing how long to play a particular note or display a particular image. Indeed, the absence of sound or video can have just as much of an impact on the experience as any note or image that is presented. Said another way, the absence of sound (or an image) itself constitutes sound (or image) data. As an example, the absence of image data means that no image will be displayed (and so, e.g., a black screen will be displayed), while the absence of specific text data means that any displayed text is taken down. (*See* EX1004, 3:24-41.) And, as explained below, timing data in Comps ensures that content is output sequentially and chronologically.³ *See infra* Section VII.B.

³ Petitioner sometimes treats a single event as a “content-related . . . data segment” while at other times treating two sequential events as a single “content-related . . . data segment.” Petitioner provides no explanation for this. Petitioner’s choice is

In sum, all petitioned claims require outputting “each” content-related . . . data segment for the two data files, and not just a subset of them. Because Petitioner relies on just a subset of events as the purported “content-related . . . data segments” — and does so without explanation or justification — Petitioner fails to meet its burden of showing a reasonable likelihood that it will prevail on any of the challenged claims.

Additionally, Petitioner does not explain why two events (JPEG1/JPEG_{d1}, JPEG2/JPEG_{d2}, N_{f3}/N_{d3}, N_{f4}/N_{d4}) can constitute a single data segment. (Pet., 13-14, 27-28, 36.) For all the reasons above, timing events — such as JPEG_{d1}, JPEG_{d2}, N_{d3}, and N_{d4} — must constitute distinct data segments (to the extent anything in Comps can be considered a data segment). Petitioner’s reliance on multiple data segments in Track 2 and Track 1 is thus incorrect and fails to meet the “content-related . . . data segments” claim limitations. Petitioner is also incorrect that JPEG_{d1} and JPEG_{d2} are assigned to data segments in Track 1 based on an assignment rule, as there is no preceding SYNCH command for these events. (*Id.*, 27-28, 36.)

particularly odd given that Petitioner considers text data without any timing data (e.g., TEXT1) to be a “content-related . . . data segment” but does not consider timing data that corresponds to the absence of sound, image, or text (e.g., TEXTD₁) to be a “content-related . . . data segment.” *See* Pet., 13-14, 27-28, 36.

Further, given that N_{d3} and N_d are distinct events (and so must be considered distinct data segments to the extent anything in Comps is a data segment), Petitioner does not explain how the claim requirement of assigning “each” content-related second data segment to “one” of the content-related first data segments is met. This is an express requirement of all independent claims. (EX1001, claims 1 (“assigning each one of the content-related second data segment to one of the content-related first data segments”), 9 (“assigning each one of the content-related second data segment to each one of the content-related first data segment”), 22 (“assigning . . . each of the ordered content-related second data segments . . . with a corresponding one of the ordered content-related first data segments”).) The Petition fails for this reason as well.

B. Comps Does Not Disclose Outputting the Content-Related First and Second Data Segments “Sequentially” or “Chronologically”

Comps describes executing the events in its master track sequentially. (EX1004, 4:25-50.) However, Petitioner improperly relies on a mere subset of the events in tracks, and so the complete set of alleged data segments in the alleged data files are not output at all, much less sequentially and chronologically. (Pet., 13-14, 27-28.)

Moreover, the subset of events in Comps that Petitioner maps to the “content-related . . . data segments” are not executed sequentially, as there are intermittent events that are output between them. (Pet., 27-30, 36; *see also* EX1004, 3:22-43,

3:57-4:2.) In particular, Petitioner alleges that events N_{f1}/N_{d1} , N_{f2}/N_{d2} , N_{f3}/N_{d3} , and N_{f4}/N_{d4} are “content-related first data segments” and JPEG1/JPEG_{d1} and JPEG2/JPEG_{d2} in Track 2 and TEXT1 and TEXT2 in Track 3, are “content-related second data segments.” (Pet., 13-14, 27-28, 36.) However, these events are not output sequentially because fields such as D_1 in Track 1, JPEGD₁ and JPEGD₂ in Track 2, and TEXTD₁ in Track 3 are output in between the alleged content-related data segments. (EX1004, 3:22-43, 3:57-4:2.)

The Petition fails for this reason, as every claim requires sequential outputting, and the limited events that Petitioner relies on are not output sequentially.

More broadly, Comps’ SYNCH commands may lead to entire events in the slave tracks being skipped. (EX1004, 25-43; *supra* Section II.C.) Thus, by design, Comps does not meet the limitation of “sequentially” outputting “each” alleged data segment in the tracks. Comps necessarily fails as an anticipatory reference for this reason as well.

Comps discloses executing the events in its master track in a timewise order (though as described above, that is not necessarily true for the events in the slave tracks, as events may be skipped). (*Id.*, 2:43-64, Fig. 3; *supra* Section II.C.) Again, by mapping just a subset of the events in the tracks to the data segments limitations and skipping multiple events, Petitioner ends up relying on events that are not in chronological order.

For instance, for Track 1, without accounting for event D₁ (and any other events indicated by the squiggly lines in the event), all the ensuing events will not be in their chronological order — they will be too early, and so out of alignment with the other tracks. (EX1004, Fig. 3.) This is similarly true for Tracks 2 and 3. (*Id.*)

Finally, for the slave tracks, because their events are not even necessarily executed at all (i.e., if they precede a SYNCH command and end up being skipped to ensure synchronicity), Comps does not describe outputting each alleged data segment in chronological order. (*Id.*, 4:25-57; *supra* Section II.C.) That is, if an event is skipped because of a SYNCH command, then the ensuing event is not executed in chronological order, but in a new, unintended order that omits certain content. (*Id.*) Comps thus necessarily fails as an anticipatory reference for this reason as well, and so the Petition must fail.

VIII. POTENTIAL FOR ESTOPPEL BASED ON CONCURRENT PROCEEDING

Claims 1, 3, 5, 9, 12, 13, 15, 20, and 21 of the '794 patent are the subject of co-pending IPR2022-01086, with a final written decision expected to be issued by December 19, 2023. If Patent Owner prevails in that proceeding, Patent Owner intends to seek termination of this Petition on the theory that Petitioner is a real-party-in-interest in IPR2022-01086. 35 U.S. Code § 315 (e), 35 U.S.C. §§ 314(a) and 325(d); *see also Samsung Electronics Co., Ltd. v. MemoryWeb, LLC*, IPR2022-00222, Paper 44, (August 22, 2023) (following the issuance of final written decision

favorable to the patent owner in a different IPR, allowing for additional discovery and briefing as to whether the petitioner is an RPI).

IX. CONCLUSION

For the reasons stated above, institution of the IPR should be denied.

Dated: October 20, 2023

By: /Christine E. Lehman/
Christine E. Lehman
PTO Reg. No. 38,535
Counsel for Patent Owner

CERTIFICATE OF COMPLIANCE

The undersigned hereby certifies that Patent Owner's Preliminary Response (the "POPR") consists of 7,398 words, excluding the table of contents, certificate of service, this certificate of compliance, or table of exhibits. The POPR complies with the type-volume limitation of 14,000 words as mandated in 37 C.F.R. § 42.24. In preparing this certificate, counsel has relied on the word count of the word-processing system used to prepare this paper (Microsoft Word).

Dated: October 20, 2023

Respectfully submitted,

/Christine E. Lehman /

Christine E. Lehman

PTO Reg. No. 38,535

Counsel for Patent Owner

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing **PATENT OWNER'S PRELIMINARY RESPONSE** was served on, via electronic mail, as agreed to by counsel, upon the following counsel for Petitioner:

Aliza George Carrano, Reg. No. 70,637
Willkie Farr & Gallagher LLP
1875 K Street NW,
Washington, DC 20006
acarrano@willkie.com

Indranil Mukerji, Reg. No. 46,944
Willkie Farr & Gallagher LLP
1875 K Street NW,
Washington, DC 20006
imukerji@willkie.com

J. Christopher Moulder, Reg. No. 70,490
Willkie Farr & Gallagher LLP
1875 K Street NW,
Washington, DC 20006
cmoulder@willkie.com

And to:

Netflix-VL_WFG@willkie.com

Dated:

/ Jaime F. Cardenas-Navia /
Jaime F. Cardenas-Navia