UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

VIRENTEM VENTURES, LLC,
Patent Owner.

Case IPR2019-01237
Patent No. 8,345,050

PATENT OWNER'S NOTICE OF APPEAL

Office of the General Counsel
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

Pursuant to 35 U.S.C. §§ 141-144 and 319, and 37 C.F.R. §§ 90.2 and 90.3, notice is hereby given that Patent Owner Virentem Ventures, LLC ("Virentem") appeals to the United States Court of Appeals for the Federal Circuit from the Final Written Decision entered February 2, 2021 (Paper No. 39) by the U.S. Patent and Trademark Office, Patent Trial and Appeal Board ("Board"), and from all underlying findings, determinations, rulings, orders, and decisions regarding IPR2019-01237 and its Final Written Decision. A copy of the Final Written Decision is attached hereto as Exhibit A.

In accordance with 37 C.F.R. § 90.2(a)(3)(ii), Virentem further indicates that the issues on appeal may include, but are not limited to:

(1) the Board's determination that Petitioner Google LLC met its burden of proving by a preponderance of the evidence that claims 1-4, 8, 20, 25, 31, 32, 34, 36, 40-43, and 45 of U.S. Patent No. 8,345,050 ("'050 Patent") are unpatentable under 35 U.S.C. § 103, including whether Petitioner established a motivation to combine the asserted references;

(2) the Board's claims constructions and other legal interpretations of claims

1-4, 8, 20, 25, 31, 32, 34, 36, 40-43, and 45 of the '050 Patent, including whether the Board properly applied the standards for claim construction set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005);

(3) the Board's findings that conflict with the evidence of record and are not supported by substantial evidence;

(4) the Board's impermissible shifting of the burden to Virentem to show patentability in violation of 35 U.S.C. § 316(e), 5 U.S.C. § 556(d), and 37 C.F.R. § 42.20(c);

(5) whether the determinations by the members of the Board in this proceeding, including the determination that claims 1-4, 8, 20, 25, 31, 32, 34, 36, 40-43, and 45 of the '050 Patent are unpatentable, are unconstitutional in view of, among other things, the principles in *Arthrex, Inc. v. Smith & Nephew, Inc.*, 941 F.3d 1320 (Fed. Cir. 2019); and

(6) all other issues decided adversely to Virentem.

Pursuant to 37 C.F.R. § 90.3, this Notice of Appeal is timely, having been filed within 63 days after the date of the Final Written Decision.

Pursuant to 35 U.S.C. § 142 and 37 C.F.R. § 90.2(a), true and correct copies of this Notice of Appeal are being filed simultaneously with the Patent Trial and Appeal Board and the Clerk's Office for the United States Court of Appeals for the

Federal Circuit, along with the required docketing fee, and served on the Director of the Patent and Trademark Office, as described in the accompanying Certificate of Filing and Service. Furthermore, a copy of this Notice of Appeal is being served on Petitioner Google LLC.

Dated: April 2, 2021 Respectfully submitted,

By */s/ Lauren N. Robinson*

Lauren N. Robinson, Lead Counsel
Reg. No. 74,404
Denise M. De Mory, Back-Up Counsel
(*pro hac vice*)
Bunsow De Mory LLP
701 El Camino Real
Redwood City, CA 94063
T: 650-351-7248
F: 415-426-4744
lrobinson@bdiplaw.com
ddemory@bdiplaw.com
BDIP_IPR_Virentem_Service@bdiplaw.com

Counsel for Patent Owner

CERTIFICATE OF SERVICE

The undersigned hereby certifies that, in addition to being filed electronically through the Patent Trial and Appeal Board's End to End System (PTAB E2E), the foregoing PATENT OWNER'S NOTICE OF APPEAL was served by Express Mail, tracking number 9470 1116 9900 0734 0117 22, April 2, 2021, on the Director of the United States Patent and Trademark Office, at the following address:

Office of the General Counsel
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

In addition, the undersigned certifies that a copy of the foregoing Notice of Appeal, along with the required docket fee, was filed on April 2, 2021, with the Clerk's Office for the United States Court of Appeals for the Federal Circuit through the Court's CM/ECF filing system.

The undersigned certifies pursuant to 37 C.F.R. § 42.6(e) that a true copy of the foregoing PATENT OWNER'S NOTICE OF APPEAL has been served in its entirety on April 2, 2021, by electronic mail on the Petitioner via its attorneys of record:

Naveen Modi
Joseph E. Palys
Daniel Zeilberger
Howard Herr
Paul Hastings LLP
875 15th St. N.W.,
Washington, D.C., 20005,
Tel.: 202.551.1700,
Fax: 202.551.1705,
PH-Google-Virentem-IPR@paulhastings.com.

/s/ Lauren N. Robinson

Lauren N. Robinson, Lead Counsel
Reg. No. 74,404
Bunsow De Mory LLP
701 El Camino Real
Redwood City, CA 94063
T: 650-351-7248
F: 415-426-4744
lrobinson@bdiplaw.com
BDIP_IPR_Virentem_Service@bdiplaw.com

Lead Counsel for Patent Owner

Trials@uspto.gov
571-272-7822

Paper 39
Entered: February 2, 2021

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

VIRENTEM VENTURES, LLC,
Patent Owner.

IPR2019-01237
Patent 8,345,050 B2

Before MEREDITH C. PETRAVICK, TERRENCE W. McMILLIN, and GARTH D. BAER, *Administrative Patent Judges.*

BAER, *Administrative Patent Judge.*

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

Google LLC ("Petitioner") filed a petition to institute an *inter partes* review of claims 1–4, 8, 20, 25, 31, 32, 34, 36, 40–43, and 45 of U.S. Patent No. 8,345,050 B2 (Ex. 1001, the "'050 patent") pursuant to 35 U.S.C. § 311 *et seq*. Paper 1 ("Petition" or "Pet."). Virentem Ventures, LLC ("Patent Owner") filed a preliminary response to the Petition. Paper 11 ("Preliminary Response"). On February 5, 2020, we instituted trial. Paper 16 ("Inst. Dec."). Patent Owner filed a Response. Paper 27 ("PO Resp."). Petitioner filed a Reply. Paper 29 ("Pet. Reply"). Patent Owner filed a Sur-reply. Paper 32 ("PO Sur-reply"). An oral argument was held on November 18, 2020, and a transcript was entered into the record. Paper 38 ("Tr.").

We have jurisdiction to conduct this *inter partes* review under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons below, we determine that Petitioner has shown, by a preponderance of evidence, claims 1–4, 8, 20, 25, 31, 32, 34, 36, 40–43, and 45 of the '050 patent are unpatentable.

A. RELATED MATTERS

The parties indicate that the '050 patent has been asserted in the following case filed in the United States District Court for the District of Delaware:

Virentem Ventures, LLC v. YouTube, LLC, Case No. 1:18-cv-00917. Pet. 1; Paper 3, 1.

B. THE '050 PATENT

The '050 patent is titled "Management of Presentation Time in a Digital Media Presentation System with Variable Rate Presentation Capability." Ex. 1001, code (54).

By way of background, the '050 patent explains that traditional digital rendering systems, such as RealNetworks RealPlayer digital media players, maintain an internal variable during playback of media content that reflects a current presentation time, which is referred to as "Current Time." *Id.* at 1:39–43. Current Time reflects a current position in the media content, starting at zero at the beginning of the media content. *Id.* at 1:43–48. The '050 patent explains that Current Time conflates two different properties of media playback: (1) "Presentation Time," which is the time elapsed since the beginning of the media content presentation, and (2) "Content Time," which is the location in the media content stream that is currently being played. *Id.* at 1:67–2:15. The '050 patent also describes that "Data Time" is a time value associated with each content element "specifying how long it would take to reach that location, starting from the beginning of the media content, and playing at normal rate." *Id.* at 2:20–23. The '050 patent explains that "Presentation Time and Data Time are identical in traditional players, because traditional players can only present media content at a fixed 'normal' rate." *Id.* at 2:24–26. In the case of media players enhanced with Time-Scale Modification (TSM) capability, the player can present media content at various rates, and thus, Presentation Time and Data Time may diverge. *Id.* at 2:26–30. For example, a player with TSM functionality could play a 60 second clip in only 30 seconds if the content is presented at a fixed rate that is twice the normal rate. *Id.* at 2:30–34.

The '050 patent describes two problems resulting from the possible disparity between Presentation Time and Data Time in media players with TSM functionality. *Id.* at 2:35–36. A first problem is that "the significance

of the time value distributed to multiple objects is, in general, ambiguous." *Id.* at 2:44–45. A second problem "is that Data Time does not, in general, equal Presentation Time, and the calculation, storage, and distribution of a single time value is inadequate to specify both values." *Id.* at 2:45–50. In particular, the '050 patent explains that it is common for media players to rely on an audio renderer to calculate and update the Current Time value. *Id.* at 2:51–63. When "a media player does in fact acquire the Current Time value from the audio renderer, the value that the audio renderer will return to the system will typically be the Presentation Time." *Id.* at 2:64–67. This creates a problem in media players with TSM functionality because "most of the rest of the system needs Data Time," and thus, "most of the rest of the system can no longer employ the value returned by the audio renderer object." *Id.* at 2:67–3:2.

The invention manages "Presentation Time in a digital rendering system for presentation of temporally-ordered data when the digital rendering system includes a Variable Rate Presentation capability." *Id.* at 3:9–3:12. Figure 1 of the '050 patent is reproduced below.

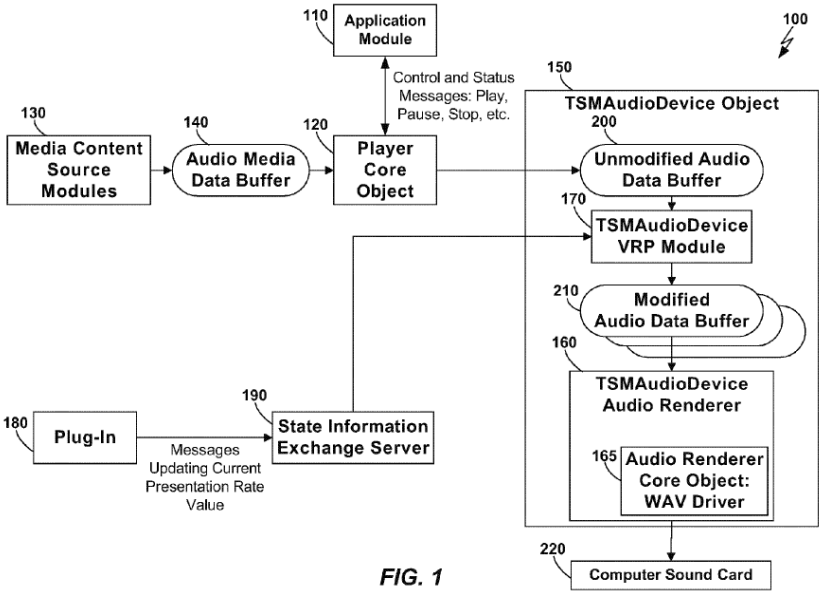

FIG. 1

Figure 1, above, depicts "a block diagram of a Presentation System embodied as a RealNetworks RealPlayer application running on a computer." *Id*. at 5:41–43. Presentation System 100 includes an application module 110 that communicates control and status messages (e.g., Play, Pause, Stop), to Player Core object 120. *Id.* at 6:14–22. "Temporal Sequence Presentation Data" or "Presentation Data" is embodied as streaming media content and is delivered to the RealPlayer application. *Id*. at 6:22–28. Presentation Data are received by media content source module(s) 130 and are placed in audio media data buffers 140. *Id.* at 6:29–33. TSMAudioDevice object 150 combines functions of the Renderer for audio data (TSMAudioDevice Audio Renderer 160) and a Variable Rate Presentation Module. *Id.* at 6:64–7:2.

The '050 patent notes that although the RealNetworks RealPlayer application does not natively include support for variable rate playback, plug-in 180 adds variable rate playback capability to the RealPlayer application. *Id.* at 7:6–10. Plug-in 180 communicates with TSMAudioDevice object 150 by sending messages that specify a desired playback or presentation rate through an object called State Information Exchange Server 190 ("SIX Server 190"). *Id.* at 7:16–19. TSMAudioDevice object 150 accepts messages from SIX Server 190 that specify a desired playback or presentation rate. *Id.* at 7:20–22. The '050 patent notes that Player Core object 120 of the RealPlayer application includes methods to query the Current Time, and Player Core object 120 interprets all returned times as Data Times. *Id.* at 7:64–8:6. To support the concept of Presentation Times that are different than Data Times, according to one embodiment of the '050 patent, TSMAudioDevice object 150

performs conversion of Presentation Time into Data Time (as needed by Player Core object 120). *Id.* at 8:6–8:14.

C. CHALLENGED CLAIMS

Petitioner challenges claims 1–4, 8, 20, 25, 31, 32, 34, 36, 40–43, and 45 of the '050 patent. Pet. 3. Of the challenged claims, claims 1, 8, 20, 25, and 36 are independent. Claim 1 is illustrative and recites:

> 1. A method, performed by at least one machine, for rendering temporal sequence presentation data in a machine-implemented rendering system, the temporal sequence presentation data being tangibly stored in a first computer-readable medium, the method comprising steps of:
>
> (A) maintaining a value of a presentation time parameter tangibly stored in a second computer-readable medium and representing an amount of time elapsed during rendering of a portion of the temporal sequence presentation data;
>
> (B) providing the value of the presentation time parameter to a first component of the rendering system;
>
> (C) maintaining a value of a data time parameter tangibly stored in a third computer-readable medium and representing an amount of time required by the rendering system to render the portion of the temporal sequence presentation data at a default presentation rate;
>
> (D) providing the value of the data time parameter to a second component of the rendering system; wherein the value of the presentation time parameter is not equal to the value of the data time parameter; and
>
> (E) rendering at least a part of the temporal sequence presentation data using time-scale modification (TSM).

Ex. 1001, 23:35–57.

D. ASSERTED GROUNDS OF UNPATENTABILITY

Petitioner asserts the following grounds of unpatentability. Pet. 3.

Claims Challenged	35 U.S.C. §[1]	Reference(s)/Basis
1–4, 8, 20, 25, 31, 32, 34, 36, 40–43, 45	§ 103(a)	Nelson[2]
25, 31, 32, 34, 36, 40–43, 45	§ 103(a)	Nelson, Covell[3]

II. ANALYSIS

A. LEVEL OF SKILL IN THE ART

Petitioner contends that a person of ordinary skill would have either "(a) a Master's or doctoral degree in computer science, electrical engineering, or a similar discipline" or "(b) a Bachelor's degree in computer science, electrical engineering, or a similar discipline and at least two years of work experience in content presentation systems, or a related area." Pet. 3–4 (citing Ex. 1002 (Schonfeld Decl.) ¶¶ 19–20). "Patent Owner accepts Petitioner's proffered level of ordinary skill in the art in analyzing Petitioner's allegations of obviousness." PO Resp. 25 (citing Ex. 2016 (Boncelet Decl.) ¶¶ 30–32). We agree with and adopt Petitioner's proposal because it is consistent with the '050 patent, as well as the problems and solutions in the prior art of record. *See Daiichi Sankyo Co., Ltd. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007).

B. CLAIM CONSTRUCTION

In an *inter partes* review, claims are "construed using the same claim construction standard that would be used to construe the claim in a civil

[1] The Leahy-Smith America Invents Act ("AIA") amended 35 U.S.C. §§ 102 and 103. *See* Pub. L. No. 112-29, 125 Stat. 284, 285–88 (2011). As the application that issued as the '050 patent was filed before the effective date of the relevant amendments, the pre-AIA versions of §§ 102 and 103 apply.
[2] US Patent No. 5,719,786 (Ex. 1006) issued Feb. 17, 1998.
[3] US Patent No. 5,828,994 (Ex. 1007) issued Oct. 27, 1998.

action under 35 U.S.C. § 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent." *See* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340, 51,340, 51,358 (Oct. 11, 2018) (amending 37 C.F.R. § 42.100(b) effective November 13, 2018) (now codified at 37 C.F.R. § 42.100(b) (2019)). In applying a district court-type claim construction, we are guided by the principle that the words of a claim "are generally given their ordinary and customary meaning," as understood by a person of ordinary skill in the art at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc) (citation omitted). "In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence." *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17). There is a "heavy presumption," however, that a claim term carries its ordinary and customary meaning. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (citation omitted).

We are also guided by the principle that we only construe claim terms if, and to the extent that, it is necessary for the purpose of the proceeding. *See, e.g., Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011) ("[C]laim terms need only be construed 'to the extent necessary to resolve the controversy.'") (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

1. *"maintaining a value of a presentation time parameter . . . representing an amount of time elapsed during rendering of a portion of the temporal sequence presentation data"*

Patent Owner requests that we give this term its plain meaning. PO Resp. 25–26 ("Patent Owner does not believe that this limitation requires construction apart from the plain meaning of the words of the claim."). Patent Owner states that it raises this term as a claim construction issue because it believes we misconstrued it in our Institution Decision. *Id.* at 26–27. Patent Owner focuses its argument on the "during rendering" portion of the term and argues that in our Institution Decision, we read the term as if it said "during [and after] rendering." *Id.* at 27.

Petitioner responds that Patent Owner's argument is based on a false premise and that the Board did not interpret the claims as suggested by Patent Owner. Pet. Reply 1 ("[N]either [Petitioner] nor the Board has interpreted the claim in this way. Rather, the real dispute centers on what 'during rendering' means."). Petitioner argues that, to the extent there is a dispute regarding the interpretation of this term, the dispute can be resolved by looking at the definition of "Presentation Time" as set forth in the specification of the '050 patent. *Id.* at 1–2. We agree with Petitioner.

At column 2, lines 1–6, the '050 patent defines "Presentation Time" as "time elapsed since the beginning of the media content presentation" and provides an example: "if the media has been playing for one minute, the value of Presentation Time is 60,000 milliseconds." The '050 patent provides this further example to highlight the difference between "Presentation Time" and "Data Time:"

> Presentation Time and Data Time are identical in traditional players, because traditional players can only present media content at a fixed "normal" rate. However, when a player is

> enhanced with a Time-Scale Modification (TSM) capability, it can present media content at various rates. Because of this, Presentation Time and Data Time are no longer the same. For example, if a 60-second clip of media content is presented at a fixed rate that is twice normal rate, at the end of the clip the Data Time is 60,000 milliseconds, but the Presentation Time is 30,000 milliseconds. This is because it only takes 30 seconds to play the 60-second clip.

Ex. 1001, 2:24–34. In accordance with the specification's definition and description, we determine that "Presentation Time" means "time elapsed since the beginning of the media content presentation." In addition, to the extent that Patent Owner's proffered construction of "time elapsed during rendering" precludes time extending beyond its initial rendering, *see* PO Sur-reply 3 (arguing that "the 'presentation time parameter' cannot be 'time elapsed during rendering of a portion of the temporal sequence presentation data' plus additional time after rendering is complete"), we reject it. Rather, consistent with the specification's definition above, "during rendering" is the "time elapsed since the beginning of the presentation" of the portion or element of interest.

2. "presentation rate"

Patent Owner proposes we construe "presentation rate" as "the speed at which media is played back in a timescale modification system." PO Resp. 34. According to Patent Owner, the parties agreed to this construction in related District Court litigation. *Id.* at 33–34. Patent Owner provides no additional reasoning or argument in support of its construction and does not explain why the parties' alleged district-court agreement should be binding here, where there is no such agreement. *See* Pet. Reply 6–7. We disagree with Patent Owner's construction to the extent it requires the claimed

presentation rate must be in a timescale modification system. Nothing in the intrinsic or extrinsic record supports reading "timescale modification system" into the claims.

3. "time-scale modification"

Patent Owner proposes we construe "time-scale modification" to mean "speeding up and slowing down the perceived rate of speech while substantially preserving both intelligibility and the perceived pitch for audio and audio-visual media." PO Resp. 36. In support of its construction, Patent Owner cites a specification passage that describes "decreas[ing] or increas[ing] the samples in a particular way *so as to leave the perceptual and linguistic information in the buffers unchanged*." PO Resp. 35–36 (citing Ex. 1001, 7:35–50).

We decline to read in preserving intelligibility or perceived pitch as those terms do not appear in the claims or even in Patent Owner's cited specification reference. Moreover, the passage Patent Owner cites is explicitly designated as an example and related to a commercial embodiment. *See* Ex. 1001, 7:20–36. The '050 patent states that the specification's embodiments are not limiting. *Id*. at 22:44–47. Accordingly, we decline to adopt Patent Owner's proposed construction. Rather, we agree with Petitioner's plain-meaning construction of "time scale modification" as "playback rate modification." *See* Pet. 11.

Although the parties propose additional terms for construction, *see* Pet. 5–11; PO Resp. 25–34, we determine no further explicit claim construction is necessary for our unpatentability determination.

C. Asserted Prior Art

1. Nelson (Ex. 1006)

Nelson was filed on February 3, 1993, and issued on February 17, 1998. Ex. 1006, codes (22), (45). The earliest priority date claimed by the '050 patent is based on an application, which matured into U.S. Patent No. 6,791,550, filed on December 11, 2001. Ex. 1001, code (60). The '550 patent claims priority to a provisional application filed on December 12, 2000. *Id*. Therefore, Nelson is prior art to the '050 patent under 35 U.S.C. § 102(b). *See* Pet. 3. Patent Owner does not contest the prior art status of Nelson. *See generally* PO Resp.

Nelson is titled "Digital Media Data Stream Network Management System." Ex. 1006, code (54). Nelson is directed to a "computer-based media data processor for controlling transmission of digitized media data in a packet switching network." *Id*. at code (57) (Abstract). Nelson "relates to the management of digitized media stream data, e.g., digitized video, and particularly relates to the capture, storage, distribution, access and presentation of digital video within a network computing environment." *Id*. at 1:7–10. Nelson discloses a digital video management system (DVMS) that provides the ability to capture, store, transmit, access, process and present live or stored media stream data, independent of its capture or storage location, in either a stand-alone or a network environment. *Id.* at 5:45–50.

Figure 4 of Nelson is reproduced below.

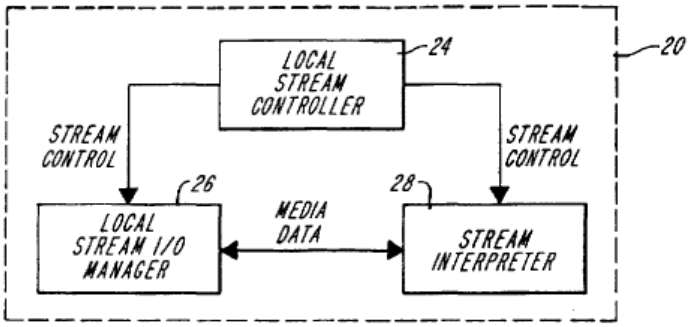

FIG. 4

Figure 4 of Nelson (above) is a schematic diagram of a network implementation of the digital video management system (DVMS). *Id.* at 5:4–6. The description of Figure 4 states:

> [T]he local DVMS manager 20 consists of three modules: the stream controller 24, stream input/output (I/O) manager 26, and the stream interpreter 28. This modularity is exploited in the DVMS design to separate the flow of data in a media data streams from the flow of control information for that media stream through the system. Based on this data and control separation, streams data and stream control information are each treated as producing distinct interactions among the three manager modules, which operate as independent agents.

Id. at 7:57–66. The description of Figure 4 further states:

> The stream interpreter module 28 is responsible for managing the dynamic computer-based representation of audio and video as that representation is manipulated in a standalone computer or a computer linked into a packet network. This dynamic management includes synchronization of retrieved audio and video streams, and control of the rate at which the audio and video information is presented during a presentation sequence.

Id. at 8:25–32. Figure 5 of Nelson is reproduced below.

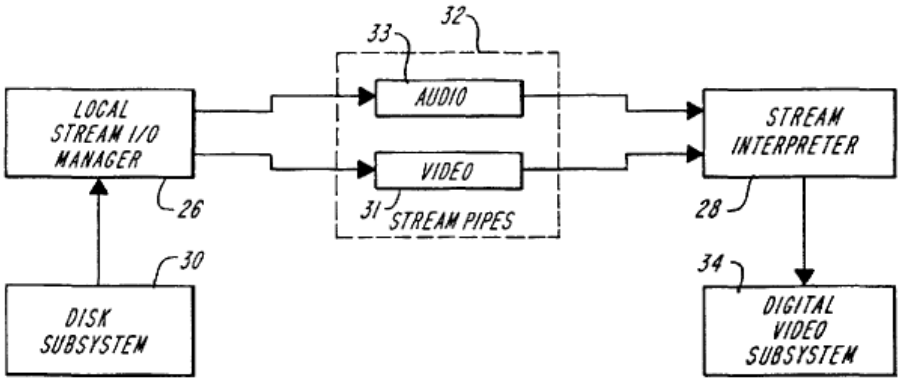

FIG. 5

Figure 5 of Nelson (above) depicts a stream flow when the DVMS requests access to audio or video streams. *Id.* at 9:62–63. The description of Figure 5 states:

> The stream I/O manager 26 module retrieves the requested streams from a stream input 30; this stream input comprises a storage access point, e.g., a computer file or analog video source. The stream I/O manager then separates the retrieved streams according to the specified file format of each stream. If two streams, e.g., audio and video streams, which are accessed were interleaved in storage, the stream I/O manager dynamically separates the streams to then transform them to distinct internal representations, each comprising a descriptor which is defined based on their type (i.e. audio or video). Once separated, the audio and video stream data are handled both by the stream I/O manager and the stream interpreter as distinct constituent streams within a stream group. The stream I/O manager 26 then exchanges the stream data, comprising sequences of presentation units, with the stream interpreter 28 via a separate queue of presentation units called a stream pipe 32, for each constituent stream; an audio stream pipe 33 is thus created for the audio presentation units, and a video stream pipe 31 is created for the video presentation units. Each audio stream (of a group of audio streams) has its own pipe, and each video stream has its own pipe. During playback of streams, the stream I/O manager continually retrieves and produces presentation units from storage and the stream interpreter

> continuously consumes them, via the stream pipes, and delivers them to a digital media data subsystem for, e.g., presentation to a user.

Id. at 9:63–10:22. "[T]he digital video management system of the invention provides synchronization of audio to video, and in general, synchronization between any two or more dynamic stream[s] being presented." *Id.* at 12:16–21.

Nelson's Figure 6 is reproduced below.

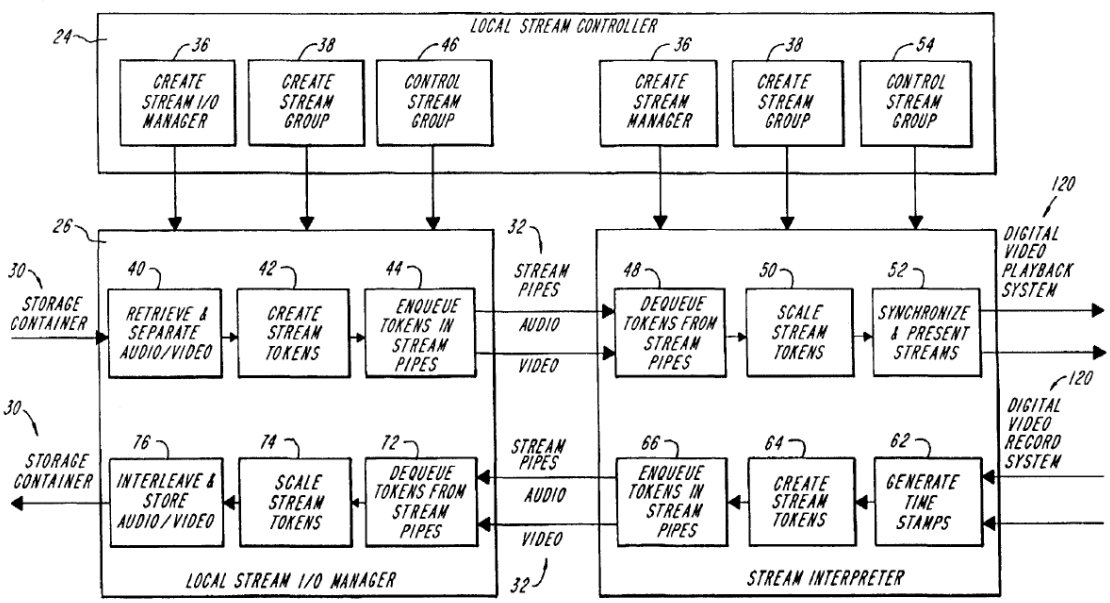

FIG. 6

Figure 6 of Nelson (above) depicts "a schematic flow chart illustrating presentation and capture scenarios carried out by the local digital video management system manager of FIG. 4." *Id.* at 5:13–15. The description of Figure 6 states:

> [T]he synchronization of streams within a stream group is the responsibility of the stream interpreter module during a scaling process. The streams may be self-synchronized using either an implicit timing scheme or an explicit timing scheme. Implicit timing is based on the fixed periodicity of the presentation units in the constituent streams of a stream group to be synchronized. In this scheme, each presentation unit is assumed to be of a fixed duration and the presentation time corresponding to each presentation unit is derived relative to a reference presentation starting time. This reference starting time must be common to all of the constituent streams. Explicit timing is based on embedding of presentation time stamps and optionally, presentation duration stamps, within each of the constituent streams themselves and retrieving the stamps during translation of streams from the storage format to the token format. The embedded time stamps are then used explicitly for synchronization of the streams relative to a chosen reference time base.
>
> Using either the implicit or explicit timing self-synchronization schemes, a reference time base is obtained from a reference clock, which advances at a rate termed the reference clock rate. This rate is determined by the reference [cl]ock[4] period, which is the granularity of the reference clock ticks.
>
> The DVMS of the invention supports two levels of self-synchronization control, namely, a base level and a flow control level. Base level synchronization is applicable to stream process scenarios in which the stream I/O manager is able to continuously feed stream data to the stream interpreter, without interruption, and in which each presentation unit is available before it is to be consumed. In this scenario, then, the stream I/O manager maintains a process rate and a process work load that guarantees that the stream I/O manager stays ahead of the stream interpreter.

Id. at 13:19–53.

---

[4] Elsewhere in the specification, "dock" was changed to "clock." *See* Ex. 1006 at p. 58 (Certificate of Correction) ("[E]ach occurrence of the word 'dock' should read --clock--.").

Nelson's Figure 10 is reproduced below.

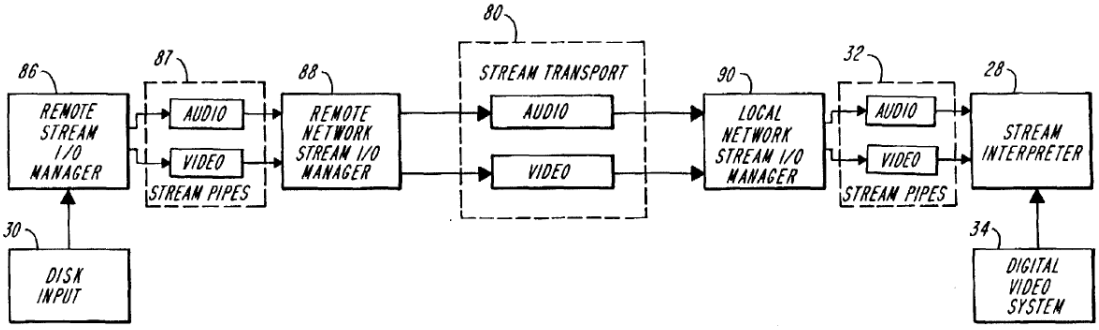

FIG. 10

Figure 10 of Nelson (above) depicts "a schematic diagram illustrating the flow of media stream data between the remote and local digital video management manager modules." *Id.* at 5:29–31. The description of Figure 10 states:

> Upon initialization from the request, and based on the network servers' stream group advertisements, the appropriate remote stream I/O manager 86 retrieves stored streams, e.g., audio and video streams, from the appropriate file storage 30 containing the requested stream group. The manager then separates the retrieved streams, if necessary, thereby producing separate audio and video presentation unit streams, and enqueues corresponding stream descriptor tokens in separate stream pipes 87, one pipe for each presentation unit token stream.
>
> The remote network stream I/O manager 88 consumes the presentation unit tokens from each of the stream pipes, assembles transmission packets based on the streams, and releases them for transmission across the network 80 directly to the corresponding local network stream I/O manager 90, based on the DVMS stream data transport protocols; the particular transport protocol used is set by the network environment.

Id. at 20:21–38.

2. Covell (Ex. 1007)

Covell teaches a time scale modification technique for "facilitat[ing] high rates of compression and/or expansion while maintaining the intelligibility of the resulting sounds." Ex. 1007, 1:6–11. In particular, Covell discloses a technique that applies a time scale modification non-uniformly to individual audio frames to "provide a more intelligible signal upon playback, even at high modification rates." *Id*. at 9:44–48.

D. OBVIOUSNESS BASED ON NELSON

Petitioner contends that claims 1–4, 8, 20, 25, 31, 32, 34, 36, 40–43, and 45 would have been obvious in view of Nelson. Pet. 3, 12–66. Based on Petitioner's analysis and for the reasons explained below, we find Petitioner has shown by a preponderance of evidence that claims 1–4, 8, 20, 25, 31, 32, 34, 36, 40–43, and 45 would have been obvious over Nelson.

1. Independent Claim 1

Preamble

Claim 1's preamble recites "[a] method, performed by at least one machine, for rendering temporal sequence presentation data in a machine-implemented rendering system, the temporal sequence presentation data being tangibly stored in a first computer-readable medium." Neither party takes a position as to whether the preamble of claim 1 is limiting. *See* Pet. 12; *see generally* PO Resp. We need not determine whether the preamble is limiting because, as explained below, Petitioner shows that Nelson teaches the preamble's subject matter. *See* Pet. 12–33.

The Petition states Nelson teaches the preamble because "*Nelson* discloses '**a computer-based media data processor** for controlling the **computer presentation** of digitized continuous **time-based** media data composed of a **sequence of presentation units**'" and "*Nelson* discloses a

DVMS [Digital Video Management System], which 'provides the ability to capture, store, transmit, access, process and **present live or stored media streams data**.'" *Id*. at 12–13 (quoting Ex. 1006, 2:10–13, 5:45–50). Petitioner further states "*Nelson* discloses that a stream includes 'dynamic information . . . with **temporal predictability**' and '**a succession of sequences** . . . in turn, each sequence contains **a succession of segments**'" and "each stream contains a presentation unit being 'a unit of continuous, **temporally**-based data to be presented,' which 'has an **associated presentation time and presentation duration**.'" *Id*. at 13–14 (quoting Ex. 1006, 6:10–26, 6:44–47).

Patent Owner does not dispute Petitioner's assertions in this regard. We have reviewed Petitioner's arguments and the underlying evidence cited in support. We are persuaded Petitioner sufficiently establishes that Nelson teaches claim 1's preamble, i.e., "[a] method, performed by at least one machine, for rendering temporal sequence presentation data in a machine-implemented rendering system, the temporal sequence presentation data being tangibly stored in a first computer-readable medium."

Element (A)

Claim 1 further requires "maintaining a value of a presentation time parameter tangibly stored in a second computer-readable medium and representing an amount of time elapsed during rendering of a portion of the temporal sequence presentation." Petitioner explains that Nelson's reference time base corresponds to the claimed presentation time parameter because it "indicates the current real time relative to the start time of the presentation unit consumption process." *Id*. at 35 (quoting Ex. 1006, 14:27–29); *see also id*. at 37. Because Nelson's "DVMS utilizes the reference time base (the

claimed 'value of a presentation time parameter') to compare it with a calculated product," Petitioner explains, "the disclosed 'value' is at least temporarily stored on the DVMS." *Id*. at 35.

Patent Owner asserts that Nelson does not teach the claimed presentation time parameter because Nelson's reference clock "ticks along at the 'reference clock rate' whether or not any given portion of presentation data, or even any given single *Nelson* presentation unit, is rendered." PO Resp. 39. Thus, Patent Owner contends, "the *Nelson* reference clock does not track elapsed time during presentation of presentation units." *Id*. In addition, Patent Owner asserts Nelson does not disclose a presentation time parameter that is "maintained." *Id*. at 46. Specifically, according to Patent Owner, "[b]ecause the use of the reference time base that Petitioner points to in Nelson results in synchronization, there is no need to *maintain* . . . the value of the reference time base for any purpose." *Id*. We disagree with Patent Owner's arguments.

First, Patent Owner's arguments related to Nelson's "reference clock" are not persuasive because Petitioner relies on Nelson's reference time base as the claimed presentation time parameter. Nelson's reference clock and reference time base are not the same features. *See* Pet. 33. In addition, Patent Owner's focus on what is actually rendered is misplaced. The term at issue requires only a presentation time parameter "representing*"* elapsed time during rendering. As noted above, *supra* Section II.B.1, the specification defines "presentation time" as "time elapsed since the beginning of the media content presentation." Ex. 1001, 2:2–4. Consistent with the specification's definition and claim 1's language, the time elapsed since the beginning of the media content presentation "represent[s] an

amount of time elapsed during rendering of a portion of the temporal sequence presentation," as claimed. We agree with Petitioner that Nelson's reference time base, which "indicates the current real time relative to the start time of the presentation unit consumption process for the corresponding stream," Ex. 1006, 14:27–29, meets that definition. Moreover, we agree with Petitioner's uncontested assertion that Nelson's reference time base "is at least temporarily stored in the DVMS" for the comparison described in Nelson to be made. Pet. 35; *see* PO Resp. 38–41. That storage and subsequent comparison is enough because, contrary to Patent Owner's argument, the claims do not have any requirement to maintain the presentation time parameter for any particular duration. *See* PO Resp. 47–48 (arguing that "the reference time base is not maintained at all—at each comparison conducted by the stream interpreter, the stream interpreter updates the reference time base from the reference time clock"). Thus, we agree with Petitioner that Nelson teaches "maintaining a value of a presentation time parameter tangibly stored in a second computer-readable medium and representing an amount of time elapsed during rendering of a portion of the temporal sequence presentation," as clam 1 requires.

Element (B)

Claim 1 further requires "providing the value of the presentation time parameter to a first component of the rendering system." Petitioner contends that Nelson discloses this limitation because "*Nelson* discloses providing the value of the reference time base ('the value of the presentation time parameter') to the stream interpreter of the DVMS ('a first component of the rendering system')." Pet. 38 (citing Ex. 1002 ¶¶ 68–69). We agree with Petitioner that Nelson discloses providing the value of the reference time

base to the stream interpreter. *See* Pet. 38 (explaining that "the stream interpreter module uses the value of the reference time base to determine whether to release a presentation unit for synchronization purposes" and "the reference time base is obtained from a reference clock") (internal quotation marks and citation omitted).

Patent Owner's only argument contesting the claimed "providing" step is that, even if "some value of a presentation time parameter is maintained, the parameter is never ***provided from*** where it is allegedly maintained." PO Resp. 48. We disagree with Patent Owner's argument because, as Petitioner explains, "the claims do not require that the value of the 'presentation time parameter' be 'provided from where it is allegedly maintained.'" Pet. Reply 19.

Element (C)

Claim 1 further requires "maintaining a value of a data time parameter tangibly stored in a third computer-readable medium and representing an amount of time required by the rendering system to render the portion of the temporal sequence presentation data at a default presentation rate." Petitioner corresponds Nelson's calculated or embedded presentation time to the claimed data time parameter. Pet. 39–42. Petitioner explains that in Nelson's implicit timing scheme, this value is the product of the presentation unit count and the fixed presentation duration of each presentation unit. *Id*. at 40 (citing Ex. 1006, 14:32–34, 13:26–27). "[T]his product," Petitioner notes, "represents 'an amount of time required by the rendering system to render the portion of the temporal sequence presentation data at a default presentation rate,' as claimed, because it is the same time requirement regardless of the presentation rate." *Id*. at 40 (citing Ex. 1002 ¶ 71; Ex.

1006, 17:39–48). Petitioner goes on to explain that "this value is 'tangibly stored in a third computer-readable medium'" as claimed because Nelson's "DVMS utilizes the calculated product . . . to compare it with the reference time base." *Id*. at 41 (citing Ex. 1006, 14:34–36). Petitioner further asserts that Nelson's embedded presentation time in the explicit timing scheme also teaches the claimed "data time parameter." *See id*. at 41–42. Patent Owner does not dispute Petitioner's assertions in this regard. We have reviewed Petitioner's arguments and the underlying evidence cited in support and are persuaded Petitioner sufficiently establishes that Nelson teaches "maintaining a value of a data time parameter tangibly stored in a third computer-readable medium and representing an amount of time required by the rendering system to render the portion of the temporal sequence presentation data at a default presentation rate."

Element (D)

Claim 1 further requires "providing the value of the data time parameter to a second component of the rendering system; wherein the value of the presentation time parameter is not equal to the value of the data time parameter." Petitioner explains that Nelson teaches this limitation because "Nelson discloses providing the calculated or embedded presentation time ('the value of the data time parameter') to the stream interpreter of the DVMS." *Id*. at 43. Further, Nelson discloses that the presentation time ("the value of the data time parameter") and the reference time base ("the value of the presentation time parameter") are not equal because "*Nelson* discloses that 'if the appropriate release time for those [presentation] units has passed,' *i.e.*, if the two times values are not equal, both the implicit and explicit schemes delete those units." *Id*. at 44 (citing Ex. 1006, 15:26–40).

Patent Owner argues that Nelson does not teach the claimed not-equal feature "because when units are presented, the [presentation time and data time] values that Petitioner points to are always equal." PO Resp. 44. This argument relies on Patent Owner's claim construction argument relating to "a value of a presentation time parameter . . . representing an amount of time elapsed ***during rendering*** of the portion of the temporal sequence presentation data" (emphasis added). *See, e.g.*, PO Resp. 45 (arguing that "the value that is used in the comparison that results in the 'not equal' value cannot correspond to a 'portion of the temporal sequence presentation data' that has been rendered"). As noted above, we reject that argument. *See supra* Section II.B.1. Patent Owner otherwise acknowledges that when Nelson's presentation units are received late and need to be deleted, the reference time base (presentation time) and the calculated or embedded presentation time (data time) would not be the same. *See* PO Resp. 43–45.

We have reviewed Petitioner's arguments and the underlying evidence cited in support and, for the reasons Petitioner articulates, *see* Pet. 43–44, we are persuaded that Nelson teaches "wherein the value of the presentation time parameter is not equal to the value of the data time parameter."

Element (E)

Claim 1 further requires "rendering at least a part of the temporal sequence presentation data using time-scale modification (TSM)." Petitioner explains that Nelson teaches this limitation because Nelson teaches speeding up and slowing down video streams, as well as playing video steams at a custom rate. *Id*. at 44–45 (citing Ex. 1006, 8:29–32, 17:39–50). Patent Owner does not contest that Nelson teaches rendering a part of the temporal sequence presentation data using time-scale

modification under our construction of that term as outlined above in Section II.B.3. Instead, Patent Owner asserts that "Nelson does not disclose the time-scale modification Requirement" under its construction, PO Resp. 63, which we decline to adopt for the reasons explained above. Given Nelson's disclosure of a custom/sped-up/slowed-down video playback rate, and in light of our construction of "time scale modification"—i.e., playback rate modification—we agree with Petitioner that Nelson teaches "rendering at least a part of the temporal sequence presentation data using time-scale modification."

For the reasons explained above, Petitioner has proved by a preponderance of the evidence that claim 1 would have been obvious over Nelson.

2. Claims 2–4

Petitioner explains that Nelson teaches the additional limitation in dependent claim 2 ("wherein the first component and the second component are the same component of the rendering system") because the first and second components of the rendering system "may both be the stream interpreter of the DVMS." Pet. 45. Patent Owner does not dispute Petitioner's assertions in this regard. We have reviewed Petitioner's arguments and the underlying evidence cited in support and are persuaded that Nelson teaches the additional limitation in claim 2.

Petitioner explains that Nelson teaches the additional limitation in dependent claim 3 ("wherein the step (B) comprises a step of providing the presentation time parameter value in response to a request from the first component for a current time") because Nelson's reference time base is provided in response to a current time request from the stream interpreter.

Id. at 46–47. Patent Owner does not dispute Petitioner's assertions in this regard. We have reviewed Petitioner's arguments and the underlying evidence cited in support and are persuaded that Nelson teaches the additional limitation in claim 3.

Petitioner explains that Nelson teaches the additional limitation in dependent claim 4 ("wherein the step (D) comprises a step of providing the data time parameter value in response to a request from the second component for a current time") because Nelson's implicit and explicit timing synchronization schemes involve requesting the calculated/embedded presentation time for comparison with the reference time base. *Id*. at 47–48. Patent Owner does not dispute Petitioner's assertions in this regard. We have reviewed Petitioner's arguments and the underlying evidence cited in support and are persuaded that Nelson teaches the additional limitation in claim 4.

For the reasons explained above, Petitioner has proved by a preponderance of the evidence that claims 2–4 would have been obvious over Nelson.

3. Claims 8 and 20

Independent claims 8 and 20 require a device/memory/processor, but otherwise mirror independent claim 1. Petitioner relies on its earlier arguments outlined above for these claims. *See* Pet. 48–53. Other than the arguments above, Patent Owner does not separately contest claims 8 and 20. *See* PO Resp. 38–63. For the reasons above, we conclude that Petitioner has shown by a preponderance of the evidence that claims 8 and 20 would have been obvious over Nelson.

4. Claim 25

Independent claim 25 includes limitations similar to independent claim 8, except that claim 25 adds two limitations addressing audio samples—"wherein an original portion of the original temporal sequence presentation data comprises a plural number of audio samples" and "changing the number of audio samples stored in the original portion of the original temporal sequence presentation data to produce a modified portion of the temporal sequence presentation data." In addition to its previous assertions, Petitioner explains that Nelson teaches claim 25's audio sample inclusion because Nelson discloses its presentation unit may "comprise a number of sound samples." Pet. 54 (quoting Ex. 1006, 6:53–56). Petitioner further explains that Nelson includes a recovery mechanism (i.e., a flow control level scheme) that changes the number of audio samples by deleting units or inserts null units, as needed. *Id.* at 55–56.

Patent Owner asserts that Nelson's deletion/insertion schemes do not "chang[e] the number of audio samples stored in *the original portion*" as claimed because Petitioner's asserted changes are made post-presentation. PO Resp. 58–59. We disagree. First, Patent Owner does not explain why the disputed limitation precludes post-presentation changes. *See id*. The at-issue limitation does not restrict *when* the number of audio samples that were stored in the original portion can be changed. In addition, contrary to Patent Owner's position and as Petitioner explains, Nelson discloses that null units are added while presentation is ongoing. *See* Pet. Reply 21 (citing Ex. 1006, 13:54–67, 15:41–50, 15:57–65). We agree with Petitioner that Nelson's audio sample deletion/insertion schemes teach the additional audio-sample limitations in claim 25. *See* Pet. 54–56. Thus, Petitioner has

proved by a preponderance of the evidence that claim 25 would have been obvious over Nelson.

5. Claims 31, 32, and 34

Claim 31 depends from independent claim 25 and further requires "wherein the original temporal sequence presentation data comprises at least one buffer comprising the plural number of samples." Petitioner explains that Nelson teaches claim 31's additional limitation because Nelson teaches interleaved audio and video streams with multiple timestamped data elements. *Id*. at 58. Patent Owner does not dispute Petitioner's assertions in this regard. We have reviewed Petitioner's arguments and the underlying evidence cited in support and are persuaded that Nelson teaches the additional limitation in claim 31.

Claim 32 depends from claim 31 and further requires "wherein the at least one buffer comprises a plurality of buffers." Petitioner explains that Nelson teaches claim 32's additional limitation because Nelson's interleaved media stream includes multiple individual streams, which each include timestamped data elements. *Id*. at 59. Thus, Petitioner explains, "each of the individual streams constitutes a buffer." *Id*. Patent Owner does not dispute Petitioner's assertions in this regard. We have reviewed Petitioner's arguments and the underlying evidence cited in support and are persuaded that Nelson teaches the additional limitation in claim 32.

Claim 34 depends from claim 32 and further requires "wherein the first one of the plurality of buffers comprises a plurality of the audio samples." Petitioner explains that Nelson teaches this limitation because Nelson's interleaved media stream includes multiple media streams, and one of the media streams is an audio stream with a plurality of timestamped

audio samples. *Id*. Claim 34 further requires "wherein the program instructions further comprise instructions executable by the at least one processor to process the plurality of the audio samples in the first one of the plurality of buffers while holding the value of the presentation rate parameter constant." Petitioner explains that Nelson teaches this limitation because "the presentation rate of the stream does not change unless the disclosed data is modified to be 'played at a custom rate' that is different from 'the rate at which the stream was captured' or the 'real time rate.'" *Id*. at 60 (quoting Ex. 1006, 17:39–50). As Petitioner notes, "if the presentation rate is not modified (i.e., it is kept at the default rate or a custom rate that is not subsequently changed), the presentation rate of the audio stream is preserved, while the audio stream is still subject to decoding and conversion processes for rendering the audio samples." *Id*. at 61. Patent Owner does not dispute Petitioner's assertions in this regard. We have reviewed Petitioner's arguments and the underlying evidence cited in support and are persuaded that Nelson teaches the additional limitation in claim 34.

For the reasons above, Petitioner has proved by a preponderance of the evidence that claims 31, 32, and 34 would have been obvious over Nelson.

6. Claims 36, 40–43, and 45

Claims 36, 40–43, and 45 recite limitations similar to claims 25, 31, and 34. Petitioner relies on its earlier arguments outlined above for its challenge to claims 36, 40–43, and 45. *See* Pet. 48–53. Other than the arguments above, Patent Owner does not separately contest claims 36, 40–43, and 45. *See* PO Resp. 38–63. For the reasons above, we conclude that

Petitioner has shown by a preponderance of the evidence that claims 36, 40–43, and 45 would have been obvious over Nelson.

E. Obviousness based on Nelson and Covell

Petitioner asserts that claims 25, 31, 32, 34, 36, 40–43, and 45 would have been obvious over Nelson and Covell. Pet. 67–72. Petitioner's Nelson-Covell challenge is the same as its challenge based on Nelson alone except that Petitioner relies on Covell to the extent Nelson does not teach a single limitation—changing the number of audio samples to produce a modified portion of temporal sequence presentation data—as required in claims 25, 31, 32, 34, 36, 40–43, and 45. *See* Pet. 67–72. According to Petitioner, Covell teaches this limitation by teaching time-scale modification for sound playback. *See id*. at 67–68 (citing Ex. 1007, Abstract, 1:6–11, 3:5–7, 3:27–29, 4:25–31, 9:41–48; Ex. 1002 ¶¶ 131–135). Patent Owner does not dispute that Covell teaches changing the number of audio samples as claimed and, having reviewed Petitioner's arguments and the underlying evidence cited in support, we agree that Covell teaches this limitation.

Petitioner further explains, with support from its expert and the prior art, that a skilled artisan would have been motivated to combine Covell's audio playback technique with Nelson's DVMS to improve listener comprehension or facilitate transcription while increasing playback rates and thereby reducing listening time. *See id*. at 69 (citing Ex. 1007, 1:14–23; Ex. 1002 ¶ 137).

Patent Owner asserts that Petitioner's obviousness challenge fails because "there is no motivation to combine." PO Resp. 60; *see id*. at 60–62. We disagree. As noted above, Petitioner provides reasons why a skilled artisan would have been motivated to combine Covell's audio playback

technique with Nelson's DVMS—i.e., to "provide[] a more intelligible and natural sounding speech even at high modification rates, allowing a listener to utilize this time scale modification feature with an improved efficiency." Pet. 69. With this analysis, Petitioner articulates sufficient reasoning with rational underpinning to support the legal conclusion that its proffered combination of Nelson and Covell would have been obvious to one skilled in the art. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007).

For the reasons explained above, Petitioner has proved by a preponderance of evidence that claims 25, 31, 32, 34, 36, 40–43, and 45 would have been obvious over Nelson and Covell.

III. CONCLUSION[5]

We have reviewed the Petition, Patent Owner Response, Petitioner Reply, and Patent Owner Sur-reply. We have considered all of the evidence and arguments presented by Petitioner and Patent Owner and have weighed and assessed the entirety of the evidence as a whole. We determine, on this record, that Petitioner has demonstrated by a preponderance of evidence that claims 1–4, 8, 20, 25, 31, 32, 34, 36, 40–43, and 45 of the '050 patent are

[5] Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this Decision, we draw Patent Owner's attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*, 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. § 42.8(a)(3), (b)(2).

unpatentable over Nelson and that claims 25, 31, 32, 34, 36, 40–43, and 45 are unpatentable over Nelson and Covell.

Claims	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1–4, 8, 20, 25, 31, 32, 34, 36, 40–43, 45	103(a)	Nelson	1–4, 8, 20, 25, 31, 32, 34, 36, 40–43, 45	
25, 31, 32, 34, 36, 40–43, 45	103(a)	Nelson, Covell	25, 31, 32, 34, 36, 40–43, 45	
Overall Outcome			1–4, 8, 20, 25, 31, 32, 34, 36, 40–43, 45	

IV. ORDER

It is hereby:

ORDERED that claims 1–4, 8, 20, 25, 31, 32, 34, 36, 40–43, and 45 of the ’050 patent are unpatentable under 35 U.S.C. § 103(a) as obvious over Nelson; and

Further ORDERED that claims 25, 31, 32, 34, 36, 40–43, and 45 of the ’050 patent are unpatentable under 35 U.S.C. § 103(a) as obvious over Nelson and Covell; and

FURTHER ORDERED that this Decision is final, and a party to this proceeding seeking judicial review of the Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

PETITIONER:

Naveen Modi
Joseph E. Palys
Daniel Zeilberger
PAUL HASTINGS LLP
naveenmodi@paulhastings.com
josephpalys@paulhastings.com
danielzeilberger@paulhastings.com

PATENT OWNER:

Lauren N. Robinson
Christina M. Finn
BUNSOW DE MORY LLP
lrobinson@bdiplaw.com
cfinn@bdiplaw.com