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Paper 16
Entered: February 21, 2020

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

VIRENTEM VENTURES, LLC,
Patent Owner.

IPR2019-01240
Patent 7,683,903 B2

Before MEREDITH C. PETRAVICK, JENNIFER MEYER CHAGNON, and TERRENCE W. McMILLIN, *Administrative Patent Judges.*

McMILLIN, *Administrative Patent Judge.*

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Google LLC ("Petitioner")[1] filed a Petition to institute an *inter partes* review of claims 1–4, 12–14, and 22 of U.S. Patent No. 7,683,903 B2 (Ex. 1001, the "'903 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 14 ("Preliminary Response" or "Prelim. Resp.").

We have authority under 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted unless the information presented in the Petition and the Preliminary Response shows that "there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a) (2018); *see also* 37 C.F.R. § 42.4(a) (2019) ("The Board institutes the trial on behalf of the Director."). After considering the Petition, the Preliminary Response, and the evidence of record, we do not institute an *inter partes* review as to the challenged claims of the '903 patent on the grounds of unpatentability presented.

A. Related Proceedings

The parties identify *Virentem Ventures, LLC v. YouTube, LLC,* Case No. 1:18-cv-917-MN (D. Del.) as a related matter involving the '903 patent, as well as U.S. Patent Nos. 8,345,050; 8,068,108; 9,785,400; 6,598,228; 7,100,188; 8,566,885; 7,043,433; 9,185,380; 6,801,888; and 7,299,184. Pet. 1–2; Paper 3, 1. Petitioner indicates that it is "concurrently filing [*inter partes* review] petitions against each of these patents except for U.S. Patent

[1] Petitioner identifies Google LLC and YouTube LLC as the real parties-in-interest to this proceeding. Pet. 1.

Nos. 6,801,888 and 7,299,184." Pet. 2; *see* IPR2019-01236, -01237 (pertaining to U.S. Patent No. 8,345,050); IPR2019-01238, -01239 (pertaining to U.S. Patent No. 8,068,108); IPR2019-01241 (also pertaining to the '903 patent); IPR2019-01242, -01243 (pertaining to U.S. Patent No. 9,785,400); IPR2019-01244 (pertaining to U.S. Patent No. 6,598,228); IPR2019-01245 (pertaining to U.S. Patent No. 7,100,188); IPR2019-01246 (pertaining to U.S. Patent No. 8,566,885); IPR2019-01247 (pertaining to U.S. Patent No. 7,043,433); and IPR2019-01248 (pertaining to U.S. Patent No. 9,185,380).

Patent Owner also identifies Application No. 15/700,096 (filed Sept. 9, 2017)[2] as related to this proceeding. Paper 3, 1.

The '903 patent is also the subject of co-pending IPR2019-01241.[3]

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[2] A review of USPTO records indicates that this application was abandoned on August 16, 2019.

[3] Patent Owner requests that we exercise our discretion to deny institution because Petitioner has challenged a similar set of claims challenged in this proceeding based on different cited art in IPR2019-01241. Prelim. Resp. 1–2, 28–29. After the Petition in this case was filed on June 21, 2019, the USPTO issued the July 2019 Update to the USPTO Office Trial Practice Guide, 84 Fed. Reg. 33,925 (July 16, 2019) (available at https://www.uspto.gov/sites/default/files/documents/trial-practice-guide-update3.pdf), which states: "[O]ne petition should be sufficient to challenge the claims of a patent in most situations." *Id.* at 26. In accordance, with the July 2019 Trial Practice Guide Update, the Board issued an order requesting that Petitioner rank the petitions in the order in which Petitioner wished the Board to consider the merits of the petitions. Paper 9. In response, the Petitioner asked that the Board consider the Petition in IPR2019-01241 prior to the Petition in this proceeding. Paper 13, 1. Thereafter, Patent Owner argued that the petitions in both proceedings should be denied. Paper 11. We do not believe it is appropriate to deny both petitions on this basis. Accordingly, we have considered the Petition in IPR2019-01241 and, based on the merits of that Petition, instituted *inter partes* review of the claims

B. The '903 Patent

The '903 patent is titled, "Management of Presentation Time in a Digital Media Presentation System with Variable Rate Presentation Capability." Ex. 1001, (54). By way of background, the '903 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 1:23–27. Current Time reflects a current position in the media content, starting at zero at the beginning of the media content. *Id.* at 1:27–32. The '903 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 1:50–66. The '903 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 1:66–2:7. The '903 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 2:8–10. In the case of media players enhanced with Time-Scale Modification (TSM) capability, the player can present media content at various rates, and thus

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challenged in that proceeding, which includes all the claims challenged in this proceeding and two additional claims. IPR2019-01241, Paper 16. As we determine that the merits of the Petition in this case do not support institution, we do not reach Patent Owner's arguments that we should exercise our discretion under § 314(a) to deny institution in this case.

Presentation Time and Data Time may diverge. *Id.* at 2:10–15. 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 normal rate. *Id.* at 2:15–19. The '903 patent describes two problems resulting from the possible disparity between Presentation Time and Data Time in media players with TSM functionality. *Id.* at 2:20–35. A first problem is that "the significance of the time value distributed to multiple objects is, in general, ambiguous." *Id.* at 2:27–30. 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 2:30–35. In particular, the '903 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 2:36–39. 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 2:49–52. 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 2:53–55.

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 2:62–65. Figure 1 of the '903 patent is reproduced below.

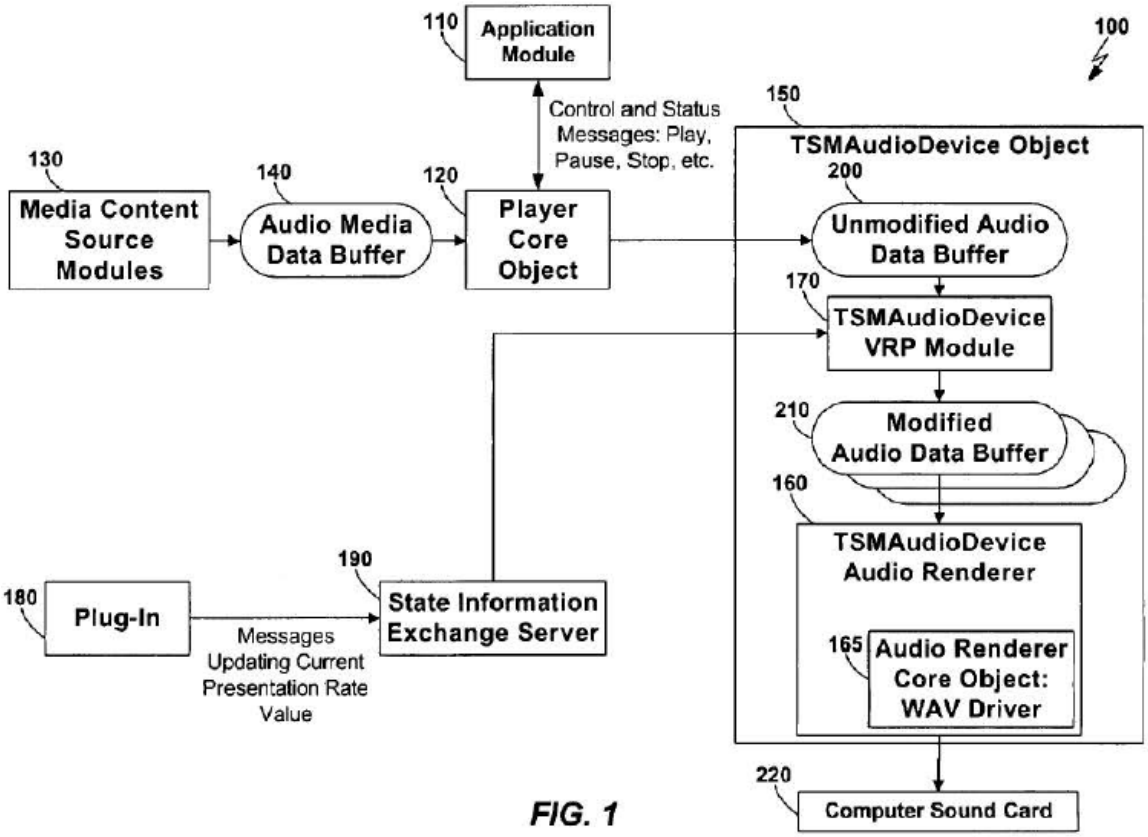

FIG. 1

Figure 1, above, depicts "a block diagram of a Presentation System embodied as a RealNetworks® RealPlayer® application running on a computer." *Id*. at 5:27–29. Presentation System 100 includes an application module 110 which communicates control and status messages (e.g., Play, Pause, Stop), to Player Core object 120. *Id.* at 6:4–7. "Temporal Sequence Presentation Data" or "Presentation Data" are embodied as streaming media content and are delivered to the RealPlayer® application. *Id.* at 6:7–13. Presentation Data are received by media content source module(s) 130, and are placed in audio media data buffers 140. *Id.* at 6:13–18. TSMAudioDevice object 150 combines functions of the Renderer for audio data (TSMAudioDevice Audio Renderer 160) and a Variable Rate Presentation Module. *Id.* at 6:49–54. The '903 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 6:58–66. 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 7:1–11. TSMAudioDevice object 150 accepts messages from SIX Server 190 that specify a desired playback or presentation rate. *Id.* at 7:5–7. The '903 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 7:50–62. In order to support the concept of Presentation Times that are different than Data Times, according to one embodiment of the '903 patent, TSMAudioDevice object 150 performs conversion of Presentation Time into Data Time (as needed by Player Core object 120). *Id.* at 7:62–67.

C. Challenged Claims

Petitioner challenges claims 1–4, 12–14, and 22 of the '903 patent. Pet. 2–3. Of the challenged claims, claims 1 and 12 are independent method claims and claims 13 and 22 are independent apparatus claims. Ex. 1001, 23:19–26:65. Claim 1 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; and

(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.

Id. at 23:19–39. Claim 12 recites:

12. 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) receiving a request from a first component of the rendering system for a first current time;

(B) 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 by the rendering system;

(C) providing the value of the presentation time parameter to the first component in response to the request;

(D) receiving a request from a second component of the rendering system for a second current time;

(E) maintaining a value of a data time parameter tangibly stored in a third computer-readable medium and representing an amount of time required to render the portion of the temporal sequence presentation data at a default presentation rate; and

(F) providing the value of the data time parameter to the second component in response to the request;

wherein the value of the presentation time parameter is not equal to the value of the data time parameter.

Id. at 24:52–25:9. Claim 13 recites:

> 13. A device 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 device comprising at least one processor and at least one second computer-readable medium tangibly storing computer program instructions for:
>
> maintaining a value of a presentation time parameter tangibly stored in a third computer-readable medium and representing an amount of time elapsed during rendering of a portion of the temporal sequence presentation data by the rendering system;
>
> providing the value of the presentation time parameter to a first component of the rendering system;
>
> maintaining a value of a data time parameter that is not equal to the value of the presentation time parameter and which 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, the data time parameter being tangibly stored in a fourth computer-readable medium; and
>
> providing the value of the data time parameter to a second component of the rendering system.

Id. at 25:10–31. Claim 22 recites:

> 22. A device 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 device comprising at least one processor and at least one second computer-readable medium tangibly storing computer program instructions for:
>
> receiving a request from a first component of the rendering system for a first current time;
>
> maintaining a value of a presentation time parameter tangibly stored in a third computer-readable medium and representing an amount of time elapsed during rendering of a portion of the temporal sequence presentation data by the rendering system;
>
> providing the value of the presentation time parameter to the first component in response to the request;

> receiving a request from a second component of the rendering system for a second current time;
>
> maintaining a value of a data time parameter that is not equal to the value of the presentation time parameter and which represents an amount of time required to render the portion of the temporal sequence presentation data at a default presentation rate, the data time parameter being tangibly stored in a fourth computer-readable medium; and
>
> providing the value of the data time parameter to the second component in response to the request.

Id. at 26:40–65. Although claim 1 is directed to a method and claim 13 is directed to a device, outside of the preambles, the claims recite the same method steps or elements. And, although claim 12 is directed to a method and claim 22 is directed to a device, outside of the preambles, the claims recite the same method steps or elements.

D. The Asserted Grounds

Petitioner challenges claims 1–4, 12–14, and 22 of the '903 patent on the following grounds:

Claims Challenged	Statutory Basis	Reference(s)
1–4, 12–14, 22	§ 102	Omoigui[4]
1–4, 12–14, 22	§ 103(a)	Omoigui

Petitioner relies on the Declaration of Dan Schonfeld, Ph.D. (Ex. 1002) which provides evidence in support of the contentions in the Petition. Dr. Schonfeld has been retained by Petitioner as an independent expert consultant. Ex. 1002 ¶ 1. Patent Owner has not submitted a declaration or other testimonial evidence of an expert.

[4] US Patent No. 7,096,271 B1 (Ex. 1005) filed Mar. 29, 2000.

II. ANALYSIS

We analyze Petitioner's asserted grounds of unpatentability and Patent Owner's arguments in its Preliminary Response to determine whether Petitioner has met the threshold standard of 35 U.S.C. § 314(a).

A. Claim Construction

"[I]n an *inter partes* review proceeding, a claim of a patent . . . shall be construed using the same claim construction standard that would be used to construe the claim in a civil 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." 37 C.F.R. § 42.100(b). 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, here, to determine whether to institute an *inter partes* review. *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)).

Petitioner provides proposed constructions of the following claim terms: "temporal sequence presentation data," "rendering system," "tangibly stored in a . . . computer-readable medium"/ "a computer-readable medium tangibly storing," and "current time." Pet. 7–13. Patent Owner contends that "it is not necessary for the Board to resolve the construction of these claim terms to resolve the institution question." Prelim. Resp. 25–26. Accordingly, Patent Owner "does not propose any specific constructions . . . and respectfully requests that the Board not adopt Petitioner's unnecessary constructions." *Id.* at 27. We agree with Patent Owner. As shown below, explicit construction of the claim terms proposed by Petitioner is unnecessary to resolve the current disputes between the parties in order to make this determination as to whether to institute *inter partes* review.

B. Legal Standards

In order for a prior art reference to serve as an anticipatory reference, it must disclose every limitation of the claimed invention, either explicitly or inherently. *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997). Anticipation "requires that every element and limitation of the claim was previously described in a single prior art reference, either expressly or inherently, so as to place a person of ordinary skill in possession of the invention." *Sanofi-Synthelabo v. Apotex, Inc.*, 550 F.3d 1075, 1082 (Fed. Cir. 2008) (citing *Schering Corp. v. Geneva Pharms., Inc.*, 339 F.3d 1373, 1379 (Fed. Cir. 2003); *Cont'l Can Co. USA v. Monsanto Co.*, 948 F.2d

1264, 1267–69 (Fed. Cir. 1991)). "[U]nless a reference discloses within the four corners of the document not only all of the limitations claimed but also all of the limitations arranged or combined in the same way as recited in the claim, it cannot be said to prove prior invention of the thing claimed and, thus, cannot anticipate under 35 U.S.C. § 102." *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008).

A patent claim is unpatentable as obvious if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int'l Co. v. Teleflex Inc*., 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence of nonobviousness.[5] *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

"In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable." *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify "with particularity . . . the evidence that supports the grounds for the challenge to each claim")). Petitioners cannot satisfy their burden of proving obviousness by employing "mere conclusory statements." *In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

[5] Neither party presents any objective evidence of nonobviousness or any related arguments for us to consider.

C. Level of Skill in the Art

With regard to the level of ordinary 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 does not address this issue. *See generally* Prelim. Resp. We find, based on the current record, Petitioner's contention to be reasonable, and, for purposes of this institution decision, we adopt the level of ordinary skill in the art as proposed by Petitioner.

D. Petitioner Fails to Show Omoigui Anticipates or Renders Obvious Any Challenged Claim

Our decision not to institute is based on our analysis of whether Omoigui discloses element (A) of independent claim 1 which recites, "***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.***" Ex. 1001, 23:19–39 (emphasis added). Independent claims 12, 13, and 22 contain the same or similar limitations. *See id.* at 24:52–25:9, 25:10–31, 26:40–65. We determine Petitioner has failed to show Omoigui discloses this element and, for this reason, has not established a reasonable likelihood of prevailing as to any challenged claim.[6]

[6] Petitioner's showing with regard to how Omoigui renders the challenged claims obvious is limited to establishing that the recited "data" or "value[s]" are "tangibly stored" in "computer-readable medi[a]." Pet. 65–67. There is no particular discussion of element (A), and Petitioner relies upon its

We begin our analysis with a description of the disclosure of Omoigui and then consider the arguments and evidence presented by the parties relating to element (A), the "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" limitation.

1. Omoigui

Omoigui was filed on March 29, 2000. Ex. 1005, code (22). The earliest possible priority date for the '903 patent is December 12, 2000. *See* Pet. 3 n.2. Therefore, Omoigui is prior art to the '903 patent under 35 U.S.C. § 102(e). *See id.* at 3. Patent Owner does not contest the prior art status of Omoigui. *See generally* Prelim. Resp.

Omoigui is titled, "Managing Timeline Modification And Synchronization Of Multiple Media Streams In Networked Client/Server Systems." Ex. 1005, code (54). Omoigui is directed to "a client/server network system" wherein "multimedia content is streamed from one or more servers to the client" and wherein "[t]he user is able to modify the playback speed of the multimedia content, allowing the playback to be either speeded up or slowed down." *Id*. at (57) (Abstract). Omoigui "relates to networked client/server systems and to managing the streaming and rendering of multimedia content in such systems." *Id*. at 1:17–19.

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explanation for Ground 1 to show that Omoigui teaches element (A). *See id*. at 65 ("As explained in Ground 1, *Omoigui* discloses all of the limitations of the challenged claims.").

Figure 1 of Omoigui is reproduced below.

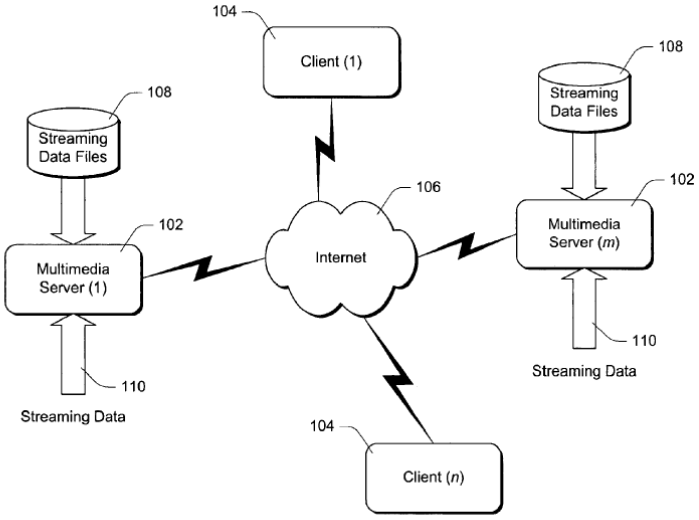

Fig. 1

Figure 1 of Omoigui depicts "a client/server network system and environment" including "one or more (m) network server computers 102, and one or more (n) network client computers 104" communicating via public network 106 (e.g., the Internet). *Id.* at 3:24–30. "Multimedia servers 102 have access to streaming media content in the form of different media streams." *Id.* at 3:36–37. "The media streams can be individual media streams (e.g., audio, video, graphical, etc.), or alternatively composite media streams including multiple such individual streams." *Id.* at 3:37–40. "The media streams received from servers 102 are rendered at the client computers 104 as a multimedia presentation, which can include media streams from one or more of the servers 102." *Id.* at 3:46–49. "A user interface (UI) at the client computer 104 allows users to either increase or decrease the speed at which the multimedia presentation is rendered." *Id.* at 3:53–55. "The individual media streams have their own timelines, which are synchronized with each other so that the media streams can be rendered simultaneously for a coordinated multimedia presentation." *Id.* at 4:5–8.

"The composite media stream has a timeline that establishes the speed at which the content is rendered." *Id.* at 4:15–17. "The sequential data units (such as audio sample values or video frames) of the individual streams are associated with both delivery times and presentation times, relative to an arbitrary start time." *Id.* at 4:52–55. "The delivery time of a data unit indicates when the data unit should be delivered to a rendering client." *Id.* at 4:57–58. "The presentation time indicates when the value should be actually rendered." *Id.* at 4:58–59. "The presentation times determine the actual speed of playback." *Id.* at 4:60–61. "The presentation times of the various different individual data streams are consistent with each other so that the streams remain coordinated and synchronized during playback." *Id.* at 4:64–67. "Client 104 also includes a master control 230 that coordinates the overall presentation of the media content." *Id.* at 9:36–37.

Omoigui discloses both client-based and server-based multimedia time-scale modification. *Id.* at 7:1, 11:1–20. The description of Figure 1 states:

> A network client 104 also accepts a speed designation from a human user. The speed designation is a speed factor relative to the original or default playback speed of the selected multimedia content. For example, a speed factor of 1.2 indicates that the multimedia content is to be rendered at 1.2 times its original or default speed, thereby achieving time compression. A speed factor of 0.8 indicates that the multimedia content is to be rendered at 0.8 times its original or default speed, thereby achieving time expansion.
>
> In response to the speed designation from the user, the system modifies the timelines of the individual media streams of the multimedia content, while keeping the timelines synchronized with each other and while maintaining the original pitch of any audio produced from audio streams. In one embodiment of the invention, such timeline modification is

> performed by the network client. In other embodiments of the invention, the timeline modification can be performed at the network server before the media streams are streamed to the network client.

Id. at 7:16–34.

Figure 3 of Omoigui is reproduced below.

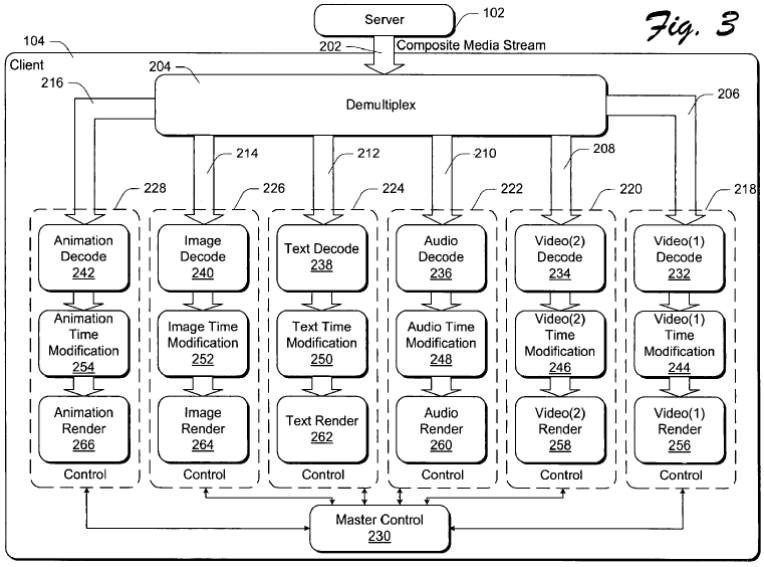

Figure 3 of Omoigui depicts "an embodiment of the invention in which timeline modification is performed by network client 104." *Id.* at 8:66–9:1.

The description of Figure 3 states:

> Each media stream has a timeline, and the timelines of the individual streams are synchronized with each other so that the streams can be rendered in combination to produce coordinated multimedia content at the network client 104. The original timelines correspond to the original recording or rendition of the multimedia material, so that rendering the streams according to their timelines results in presentation speeds that closely match the speed of the original event or performance. In the case of audio streams, the timelines preserve the original speed and pitch of the original audio content.

Id. at 9:14–24. "Different time-scale modification techniques can be used for each of the different streams." *Id.* at 13:44–46. The description of Figure 3 further states:

> Master control 230 of FIG. 3 coordinates the time-scale modification of all the streams in the multimedia content. Master control 230 receives user requests for changes in the playback speed of the multimedia content. Such changes are communicated to the individual stream controls 218-228 or the server(s) that are providing the time-scale modification (whether it be dynamically modified or pre-stored streams) for the individual stream(s).

Id. at 13:53–60. Figure 10 of Omoigui is reproduced below.

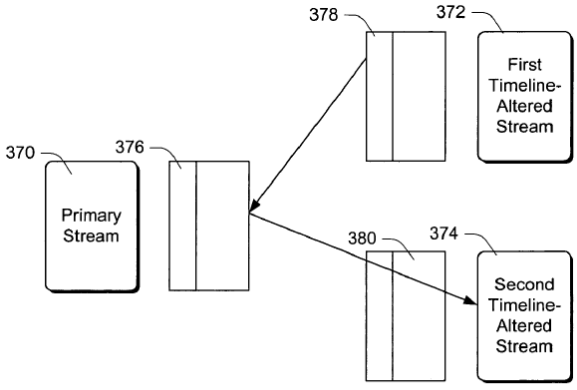

Fig. 10

Figure 10 of Omoigui (above) depicts "a primary media stream 370, a first timeline-altered media stream 372, and a second timeline-altered media stream 374." *Id.* at 17:20–22. The description of Figure 10 states:

> Also shown in FIG. 10 are reference tables or data objects corresponding to the media streams. Table 376, associated with primary media stream 370, is a cross-reference containing mappings from presentation times of the primary 30 media stream to timeline-correlated presentation times of the first and second media streams. Table 376 is indexed by presentation times of the primary media stream. Thus, for any given presentation time of the primary media stream, it is

> possible to quickly find a corresponding or timeline-correlated presentation time in either of the two timeline-altered media streams.
>
> By itself, table 376 is useful when switching from primary media stream 370 to one of the timeline-altered media streams 372 and 374. To transition, for instance, from the primary media stream to the first timeline-altered media stream, the current presentation time of the primary media stream is noted. This presentation time is used as an index into table 376 to find the correlated presentation time in the first media stream. The first media stream is then initiated at the correlated time as found in the table.

Id. at 17:26–46. The description of Figure 10 further states:

> [E]ach data unit is accompanied by a presentation time at which the data unit is to be rendered, and also by a reference presentation time, where the reference presentation time indicates a presentation time in the primary reference stream that corresponds to the presentation time of the data unit in the timeline-altered media stream. This reference presentation time is then used to index table 376 associated with primary stream 370.

Id. at 17:60–67. Figure 11 of Omoigui is reproduced below.

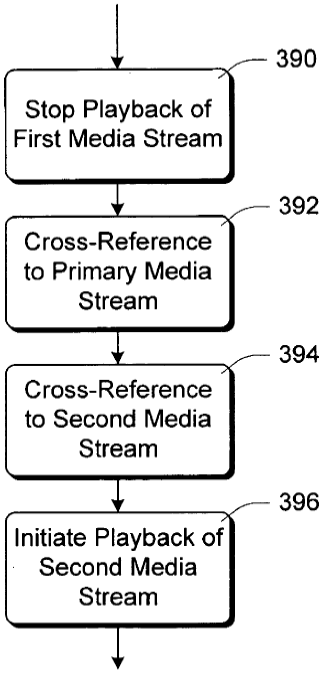

Fig. 11

Figure 11 of Omoigui depicts "the process used to find an appropriate presentation time in the second timeline-altered media stream, when switching from the first timeline-altered media stream to the second timeline-altered media stream." *Id.* at 18:1–4. The description of Figure 11 states:

> Playback of the first media stream is initially stopped at a particular presentation time of the first media stream (step 390). A stored table or cross-reference 378 is referenced to determine a presentation time of the primary media stream that has a timeline correlation with the particular presentation time at which playback of the first media stream was stopped (step 392). A table 376 of primary media stream 370 is then referred to in order to determine a presentation time of the second media stream that has a timeline correlation with the determined presentation time of the primary media stream (step 394).

> Playback of the second media stream is then initiated at a point in the second media stream having a presentation time that is no greater than the determined presentation time (step 396). In the described embodiment of the invention, playback is initiated somewhat prior to the determined presentation time, thus providing a short overlap in the rendered content to provide context when initiating the second timeline-altered media stream in midstream.

Id. at 18:8–25.

2. Analysis Relating to Element (A) of Independent Claim 1 and Similar Limitations in Claims 12, 13, and 22

Claim 1 recites: "(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." Ex. 1001, 23:24–28. Independent claims 12, 13, and 22 recite the same or similar limitations requiring maintaining a value of a presentation time parameter that represents elapsed time while rendering a portion of temporal sequence presentation data. *Id.* at 24:59–63, 25:16–20, 26:48–52.

Petitioner contends, "*Omoigui* discloses this limitation." Pet. 34 (citing Ex. 1002 (Schonfeld Decl.) ¶¶ 50–61[7]). Petitioner asserts that Omoigui discloses this limitation in three ways. *See* Pet. 34–43.

With respect to the first way Petitioner contends Omoigui discloses this limitation (*see id*. at 35–39), Petitioner argues:

> *Omoigui* discloses storing one or more sets of tables, e.g., a table 376 in Figure 10, indicating timeline correlations between

[7] Paragraphs 50–61 of the Schonfeld Declaration (Ex. 1002) are, in substance, a verbatim copy of the presentation in the Petition at pages 34–43 relating to this limitation.

> the primary (i.e., timeline-unaltered) and timeline-altered media streams (the claimed "maintaining a value of a presentation time parameter") to "allow each cross-referencing between the various streams." (Ex. 1005, 17:8–19, FIG. 10; *see also id.*, 16:46–53 (disclosing that in order to determine the correct location in the new stream to begin streaming, one of the versions of a particular data stream, referred to as a primary or reference version of the media stream, "normally has a timeline that has not been altered"), 17:20–46; Ex. 1002, ¶52.)
>
> For example, *Omoigui* discloses with reference to Figure 10 a table 376 referenced when "switching from primary media stream 370 to one of the timeline-altered media streams 372 and 374." (Ex. 1005, 17:37–39; Ex. 1002 ¶53.) By referencing to the table, for any given presentation time of the primary media stream 370, the system may "quickly find a corresponding or timeline-correlated presentation time in either of the two timeline-altered media stream" 372 and 374. (Ex. 1005, 17:27–32, 17:37–39; *see also id.*, 17:17–19 . . . , 17:27–32. . . ; Ex. 1002, ¶53.)
>
> * * *
>
> [T]he tabled presentation time of a timeline-altered media stream represents "an amount of time elapsed during rendering of a portion of the temporal sequence presentation data" because the tabled time represents a time value correlated with an amount of time elapsed during rendering a portion of the primary stream. ([Ex. 1005], 16:54–62 . . . ; *see also id.*, 4:52–59 . . . .)

Id. at 35–39. Thus, in this first way, Petitioner contends "tabled presentation time" values in "table 376" of Omoigui disclose the recited "presentation time parameter[s]." *Id.*

With respect to the second way Petitioner contends Omoigui discloses this limitation (*see id*. at 39–42), Petitioner argues:

> *Omoigui* discloses with reference to Figure 11 a process that utilizes stored time correlation tables to find "an appropriate presentation time" (the claimed "value of a presentation time parameter") in a second timeline-altered media stream, when

> switching from a first timeline-altered media stream to the second timeline-altered media stream." (Ex. 1005, 18:1–7, FIG. 11.)
>
> * * *
>
> [I]n such a process (described with reference to Figures 10 and 11), the playback of the first media stream 372 is initially stopped at a presentation time (step 390). (Ex. 1005, 18:8–10; Ex. 1002, ¶58.) A stored table 378 associated with the first media stream is then referenced to determine a presentation time of the primary media stream 370 that is time correlated with "the particular presentation time at which playback of the first media stream was stopped" (step 392) (Ex. 1005, 18:10–14). Another table, table 376 associated with the primary media stream 370 is then referenced to **determine a presentation time of the second media stream 374** that is time correlated with the previously determined presentation time of the primary media stream 370 (step 394). (*Id.*, 18:14–18.) Finally, playback of the second media stream 374 is initiated at a point **in the second media stream 374 having a presentation time that is no greater than the determined presentation time** (step 396). (*Id.*, 18:18–21; *see also id.*, 18:21–25.)

Id. at 39–41. Thus, in this second way, Petitioner contends, here again referring to "table 376," that values in "stored time correlation tables" of Omoigui disclose the recited presentation time parameter. *Id*.

With regard to both the first and second ways argued by Petitioner, we do not discern how the table values "represent[] an amount of time elapsed during rendering of a portion of the temporal sequence presentation data" as recited in the claims. As discussed in our summary of Omoigui above, Omoigui's table 376 contains values representing "correlated presentation time" of a timeline-altered media stream rather than values representing an amount of time elapsed during rendering. *See* Ex. 1005, 17:26–46.

With respect to the third way Petitioner contends Omoigui discloses this limitation (*see* Pet. 42–43), Petitioner argues:

> *Omoigui* discloses in an alternative embodiment, where each data unit of timeline-altered media streams is "accompanied by a presentation time at which the data unit is to be rendered" (the claimed "a value of a presentation time parameter") and a reference presentation time, where the reference presentation time indicates "a presentation time in the primary reference stream that corresponds to the presentation time of the data unit in the timeline-altered media stream." (Ex. 1005, 17:32-36, 17:56-66; Ex. 1002, ¶60.) As such, in this alternative embodiment, the presentation time for each data unit of the timeline-altered media streams is maintained, regardless whether a media stream is switched to another. (Ex. 1002, ¶60.)

Id. at 42. Thus, in this third way, Petitioner contends that "the presentation time at which the data unit is to be rendered" of Omoigui discloses the recited "presentation time parameter[s]." *Id.* With regard to this third way argued by Petitioner, we do not discern how a time embedded in a data unit prior to rendering "represent[s] an amount of elapsed during rendering" as recited in the independent claims.

Patent Owner argues that Petitioner has not shown that Omoigui discloses or renders obvious Element (A). Prelim. Resp. 38–44. Patent Owner argues:

> The *Omoigui* presentation time is merely the playback position in the media stream determined ***in advance*** for each data unit in a media stream and it is unrelated to elapsed rendering time. It is a fixed value that indicates when a packet should be rendered "*relative to an arbitrary start time*" for purposes of correlating the position of different media streams and it is not related to the actual start time or accumulated time spent rendering the stream. EX1005, 4:52-55.

Id. at 39. Patent Owner also argues:

> An example provided by *Omoigui* underscores the problem with Petitioner's argument. A user may, for example, switch from an unaltered timeline stream (i.e. the primary stream 370) to a timeline-altered stream that has been altered by a factor of 2.0. If the user plays the unaltered stream from the beginning of the media to a playback point ***one minute*** into the stream, and then switches to the first timeline-altered stream 372, the presentation time of the first time-altered stream will be ***thirty seconds***. EX1005, 16:54-67. This value, ***thirty seconds***, is what Petitioner claims meets the "presentation time" limitation of Element A of each of the challenged claims. But ***one minute*** is the amount of time that has elapsed during rendering. The *Omoigui* presentation time on which Petitioner relies does not represent "an amount of time elapsed during rendering" as required by the "presentation time parameter" element of the challenged claims.

Id. at 41. The cited passages in Omoigui support Patent Owner's argument. *See* Ex. 1005, 4:52–55 ("The sequential data units (such as audio sample values or video frames) of the individual streams are associated with both delivery times and presentation times, relative to an arbitrary start time."); 16:57–67 ("[A] playback point one minute into an unaltered timeline correlates to a point thirty seconds into a timeline that has been linearly altered by a factor of 2.0 (accelerated to twice the speed of the original).").

According to both Petitioner and Patent Owner, in Omoigui, "presentation time" as derived from a table or as embedded in a data unit of the presentation is a pre-determined time-stamp of how long it would take to get to that point in the presentation if it had been rendered at the designated speed (0.8X, 1X, 1.2X). *See* Pet. 34–43; Prelim. Resp. 38–44. We determine that the "presentation time" disclosed in Omoigui represents an amount of time required by the rendering system to render a portion of the

temporal sequence data at a default rate (1X) and at slower (e.g., 0.8X) or faster (e.g., 1.2X) rates. And, it is clear that the "presentation time" values disclosed in Omoigui are time-stamps that are predetermined and stored prior to rendering. "Presentation time" in Omoigui does not represent the "time elapsed in rendering of a portion" of the presentation as recited in the independent claims.

We, thus, are not persuaded that Petitioner has shown a reasonable likelihood that Omoigui discloses, teaches, or suggests this limitation of the claims.

E. Conclusion

For the foregoing reasons, we conclude that Petitioner has not demonstrated a reasonable likelihood of prevailing with respect to any of the claims challenged in the Petition.

III. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), no *inter partes* review as to any claim of U.S. Patent 7,683,903 B2 is instituted.

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