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Paper 8
Entered: October 23, 2015

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DUODECAD IT SERVICES LUXEMBOURG S.À.R.L.,
FRIENDFINDER NETWORKS INC., AND STREAMRAY INC.,
Petitioners,

v.

WAG ACQUISITION, LLC,
Patent Owner.

Case IPR2015-01035
Patent No. 8,185,611 B2

Before GLENN J. PERRY, TREVOR M. JEFFERSON,
BRIAN J. McNAMARA, *Administrative Patent Judges*.

JEFFERSON, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

Duodecad IT Services Luxembourg S.à.r.l., Friendfinder Networks Inc., and Streamray Inc. (collectively "Petitioner") filed a Petition (Paper 2, "Pet.") to institute an *inter partes* review of claims 1–18 of U.S. Patent No. 8,185,611 B2 (Ex. 1001, "the '611 patent") pursuant to 35 U.S.C. § 311 *et seq.* Patent Owner, WAG Acquisition, LLC ("WAG"), filed a Preliminary Response to the Petition. Paper 6 ("Prelim. Resp."). We have jurisdiction under 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted "unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." After considering the Petition, the Preliminary Response, and cited evidence, we conclude that Petitioner has not demonstrated a reasonable likelihood that it would prevail in showing unpatentability of any of the challenged claims.

A. Related Proceedings

Petitioner states that WAG has asserted the '611 patent in eight pending litigations: *WAG Acquisition, LLC v. Sobonito Investments, Ltd.*, Case No. 2:14-cv-1661-ES-JAD (D.N.J.), *WAG Acquisition, LLC v. Multi Media, LLC*, Case No. 2:14-cv-2340-ES-JAD (D.N.J.), *WAG Acquisition, LLC v. Data Conversions, Inc.*, Case No. 2:14-cv-2345-ES-JAD (D.N.J.), *WAG Acquisition, LLC v. Flying Crocodile, Inc.*, Case No. 2:14-cv-2674-ES-MAH (D.N.J.), *WAG Acquisition, LLC v. Gattyàn Group S.à.r.l.*, Case No. 2:14-cv-2832-ES-JAD (D.N.J.), *WAG Acquisition, LLC v. MFCXY, Inc.*, Case No. 2:14-cv-3196-ES-MAH (D.N.J.), *WAG Acquisition, LLC v. FriendFinder Networks Inc.*, Case No. 2:14-cv-3456-ES-JAD (D.N.J.); and *WAG Acquisition, LLC v. Vubeology, Inc.*, Case No. 2:14-cv-04531-ES-JAD

(D.N.J.). Pet. 2.

Petitioner filed related petitions for *inter partes* reviews of U.S. Patent No. 8,364,839, U.S. Patent No. 8,122,141 and U.S. Patent No. 8,327,011, specifically IPR2015-01033 (U.S. Patent No. 8,327,011); IPR2015-01036 (U.S. Patent No. 8,364,839); and IPR2015-01037 (U.S. Patent No. 8,122,141).

B. The '611 Patent

The '611 patent discloses "systems and methods for delivering streaming media, such as audio and video, on the Internet." Ex. 1001, 1:30–33. The '611 patent states that "[t]here is a need for improved systems and methods for delivering streaming content over the Internet . . . , which facilitate continuous transmission of streaming content, respond on demand without objectionable buffering delay, and perform without disruption or dropouts." *Id*. at 3:23–28. The '611 patent addresses these objectives by "(a) sending initial streaming media elements to the user system at a sending rate more rapid than the playback rate, to fill the user playback buffer; and (b) after the user buffer has been filled, sending further streaming media data elements to the user system at about the playback rate." *Id*. at 3:37–42. Figure 1, below, illustrates one embodiment of the elements of the '611 patent streaming media buffering system. *Id*. at 4:1–2.

Fig. 1

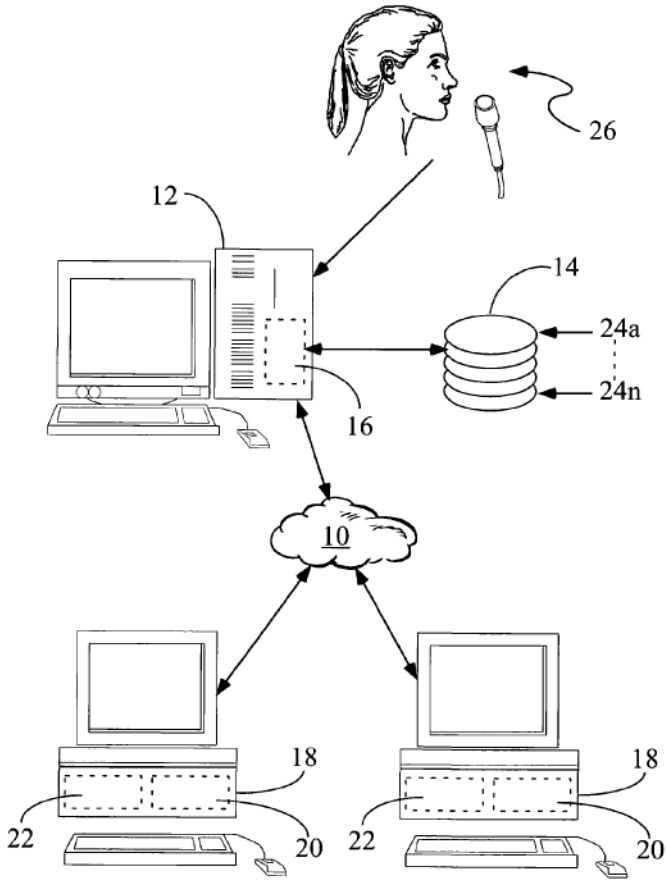


Figure 1 shows that server 12 has server buffer 14, a conventional computer storage mechanism, for storing data elements for transmission, and buffer manager 16. *Id*. at 6:12–20. Data elements may be from live source 26, or a stored file on sever 12. *Id*. The '611 patent discloses that "[t]here are a large number of ways of managing server buffer 14 . . . to implement the systems and methods described in [the] specification." *Id*. at 6:59–61.

C. Illustrative Claim

Claim 1 is illustrative of the claims at issue and is reproduced below:

> 1. A method for distributing streaming media via a data communications medium such as the Internet to at least one user system of at least one user, the streaming

> media comprising a plurality of sequential media data elements for a digitally encoded audio or video program, the user system being assumed to have a user buffer for receiving media data and facilities to play back the streaming media at a playback rate for viewing or listening by said at least one user, said method comprising: sending initial streaming media elements to the user system at an initial sending rate more rapid than the playback rate, to fill the user buffer; and configuring the initial streaming media elements so that the amount of said initial elements, and said initial sending rate, are sufficient for the user system to begin playing back the streaming media while the user buffer continues to fill;
> and after the user buffer has been filled, sending further streaming media data elements to the user system at about the playback rate; and wherein the media data elements is sent at a rate that matches the constant fill rate of a server buffer, and is received at the same rate by the user computer if there are no interruptions in the transmission of media data between the server and the user's computer.

D. Alleged Grounds of Unpatentability

The Petition sets forth proposed grounds of unpatentability of claims 1–18 of the ’611 patent as follows (Pet. 3):

References	Basis	Claims Challenged
Chen[1] and Chen FH[2]	35 U.S.C. § 103	1–18
Chen, Chen FH, and Carmel[3]	35 U.S.C. § 103	1–18
Chen, Chen FH, Carmel, and ISO-11172[4]	35 U.S.C. § 103	1–18

[1] U.S. Patent No. 5,822, 524, issued Oct. 13, 1998 (Ex. 1004, “Chen”).
[2] File History of U.S. Application No. 08/505,488, which issued as U.S. Patent No. 5,822,524 (Ex. 1005, “Chen FH”).
[3] U.S. Patent No. 6,389,473 B1, issued May 14, 2002 (Ex. 1006, “Carmel”).

II. ANALYSIS

A. Claim Interpretation

In an *inter partes* review, claim terms in an unexpired patent are given their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *see also In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1278–79 (Fed. Cir. 2015) (stating that "Congress implicitly approved the broadest reasonable interpretation standard in enacting the AIA," and "the standard was properly adopted by PTO regulation") *reh'g en banc denied*, 793 F.3d 1297 (Fed. Cir. 2015). Under the broadest reasonable construction standard, claim terms are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Any special definition for a claim term must be set forth with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

1. Claims 1, 3, 8, 9, 14, and 15—"playback rate"

Petitioner submits "playback rate" is "a rate at which the data is encoded for playback to a user." Pet. 12. Patent Owner does not dispute Petitioner's proposed construction, but notes that the '611 patent "defines the term 'playback rate,' with respect to 'media data (whether real-time or file based)' as 'the rate at which [such media] will be played out.'" Prelim. Resp. 17 (quoting Ex. 1001, 5:37–40).

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[4] International Standard Reference number ISO/IEC 11172-1:1993(E) (Exs. 1007–1009, "ISO-11172").

For purposes of this Decision, we agree with Petitioner and construe "playback rate" as "a rate at which the data is encoded for playback to a user."

2. Claims 1, 8, and 14—"at about playback rate"

Petitioner argues that "at about playback rate" is indefinite. Pet. 12. If the claim phrase is not indefinite, Petitioner argues in the alternative that the phrase should be construed to mean "any rate." *Id*.

Patent Owner disagrees, arguing that the term is properly construed as "at approximately the rate at which the media will be played out." Prelim. Resp. 16–18. The specification defines the term "playback rate," with respect to "media data (whether real-time or file based)" as "the rate at which [such media] will be played out." Ex. 1001, 5:37–40. The specification also uses the term "about the playback rate." *Id*. at 3:40–42. The specification further states that its disclosures concern both constant bit rate (CBR) and variable bit rate (VBR) encoded media. *Id*. at 4:33–35. The specification then expressly states: "Statements in this specification concerning 'constant' data rates and the like should be understood as subject to appropriate variation where VBR-encoded data may be involved." *Id*. at 4:47–50. Patent Owner argues that an ordinarily skilled practitioner would understand that "about" the playback rate takes into account variations from a constant data rate that may arise as a result of variable encoding. Prelim. Resp. 17. We are persuaded by Patent Owner's argument.

For purposes of this decision, we adopt Patent Owner's proposed construction.

3. Claims 1, 3–5, 8, 9, 12, and 14–16—Preamble Claim Phrases

Petitioner argues that no patentable weight should be given to the preamble phrase elements. Pet. 12–14. Petitioner argues that these phrases are "merely an intended use and [do] not state any sort of functional or structural limitation on the respective claim[s]." *Id*. at 13–14.

We need not reach this issue for purposes of this Decision. *See Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) ("only those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy"). Accordingly, we determine that these preamble phrases do not require construction.

4. Claims 1, 3–5, 8, 9, 12, and 14–16— "configuring the initial streaming media elements so that the amount of said initial elements, and said initial sending rate, are sufficient for the user system to begin playing back the streaming media while the user buffer continues to fill"

Because the '611 patent and its prosecution history are silent as to what qualifies as "*sufficient* for the user system to begin playing back the streaming media while the user buffer continues to fill" (emphasis added) as recited in claims 1, 3–5, 8, 9, 12, and 14–16, Petitioner contends that the claims are indefinite. Pet. 14. To the extent the phrase is construed, Petitioner assert that he broadest reasonable construction is "the initial amount of streaming media data elements are sent at an initial sending rate greater than the playback rate of the initial amount of streaming media data elements." *Id*. Patent Owner submits that the plain meaning of this limitation is that enough data is initially sent fast enough so that the player can at least get started with playback while its buffer continues to fill. Prelim. Resp. 18 (citing Ex. 1001, 8:44–46).

We are persuaded by Patent Owner that the plain meaning of the claim phrase is applicable. Based on the record before us, we do not agree with Petitioner that the claim phrase is indefinite. Instead, we determine that the broadest reasonable interpretation of the claim phrase is that sufficient data is sent such that the player can start playback while the buffer continues to fill.

5. Claims 1, 3–5, 8, 9, 12, and 14–16—"constant fill rate of a server buffer"

Petitioner argues again that the claim phrase "constant fill rate of a server buffer" is not amenable to construction and is indefinite. Pet. 15. In the alternative, Petitioner asserts that the broadest reasonable construction of the claim phrase is a "rate at which media data elements are transferred to the server buffer." *Id.*

Patent Owner contends that the '611 patent specification expressly addresses the "constant fill rate of the server buffer" as it relates to variable-bit rate (VBR) encoded data, stating that:

> In this steady state condition, the media data is sent at a rate that matches the constant fill rate of the server buffer, and is received at the same rate by the user computer if there are no interruptions in the transmission of media data between the server and the user's computer (with some variation in the case of VBR content).

Prelim. Resp. 19–20 (quoting Ex. 1001, 7:65–8:4). Thus, the Patent Owner argues Petitioner asserts incorrectly that the claim phrase is indefinite as applied to VBR-encoded data. Prelim. Resp. 19. In addition, Patent Owner notes that Petitioner's proposed construction reads the term "constant" out of the claim phrase. *Id.* at 20. Thus, Patent Owner submits

that a proper interpretation is "a data rate corresponding to the constant rate that frames are represented in the media data in normal playback." *Id*.

Based on the present record, we agree with Patent Owner that Petitioner's construction reads the term "constant" out of the claim phrase "constant fill rate of a server buffer" and would allow essentially any rate to suffice. We also are not persuaded by Patent Owner that the rate of filling a server buffer must be related to the "rate that frames are represented in the media data" as Patent Owner's construction suggests. Accordingly, for purposes of this Decision, we determine that "constant fill rate of a server buffer" is "the constant rate at which media data elements are transferred to the server buffer."

6. Claims 1, 3–5, 8, 9, 12, and 14–16—"wherein the media data elements is sent at a rate that matches the constant fill rate of a server buffer and is received at the same rate by the user computer if there are no interruptions in the transmission of media data between the server and the user's computer"

Patent Owner offers a construction for the term "matches" as used in the claim phrase "the media data elements is sent at a rate that matches the constant fill rate of a server buffer" as recited in claims 1, 3–5, 8, 9, 12, and 14–16. Prelim. Resp. 20–21. Petitioner does not offer a construction of this claim phrase. Based on the '611 patent specification (Ex. 1001, 7:55–8:4), Patent Owner contends that "matches the constant fill rate of a server buffer" means that "at any given time during uninterrupted transmission, the data rate out of the server matches the data rate into its buffer." Prelim. Resp. 21.

We are persuaded by Patent Owner's proposed construction that the term "matches" applies to the data rates into and out of the buffer. Based on the record before us, we agree with Patent Owner's proposed construction.

B. Chen and Chen FH

Petitioner contends that claims 1–18 are obvious based on Chen and Chen FH, relying on the declaration of Nathaniel Polish, Ph.D. (Ex. 1003). Pet. 16–25. Petitioner provides claim charts showing where Chen and Chen FH allegedly teach or suggest the limitations of the challenged claims. Pet. 25–57.

*1. Chen (*Ex. *1004)*

Chen describes a system for the "just-in-time" retrieval of multimedia files over a computer network. Ex. 1004, [54]. Figure 1 of Chen is reproduced below.

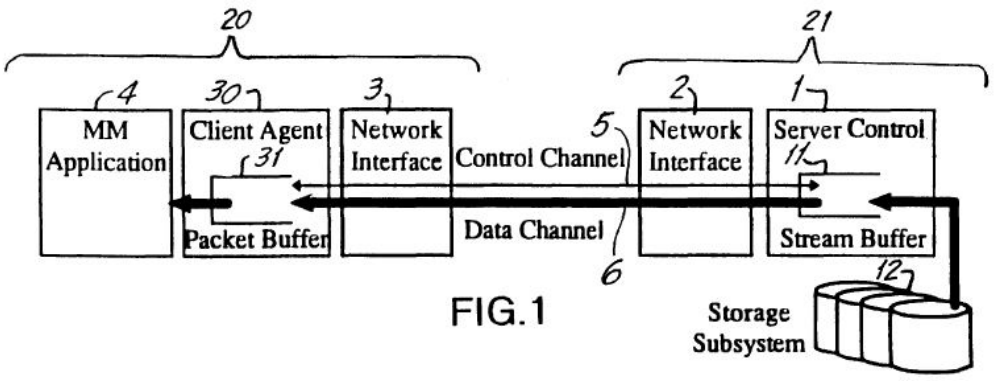


FIG.1

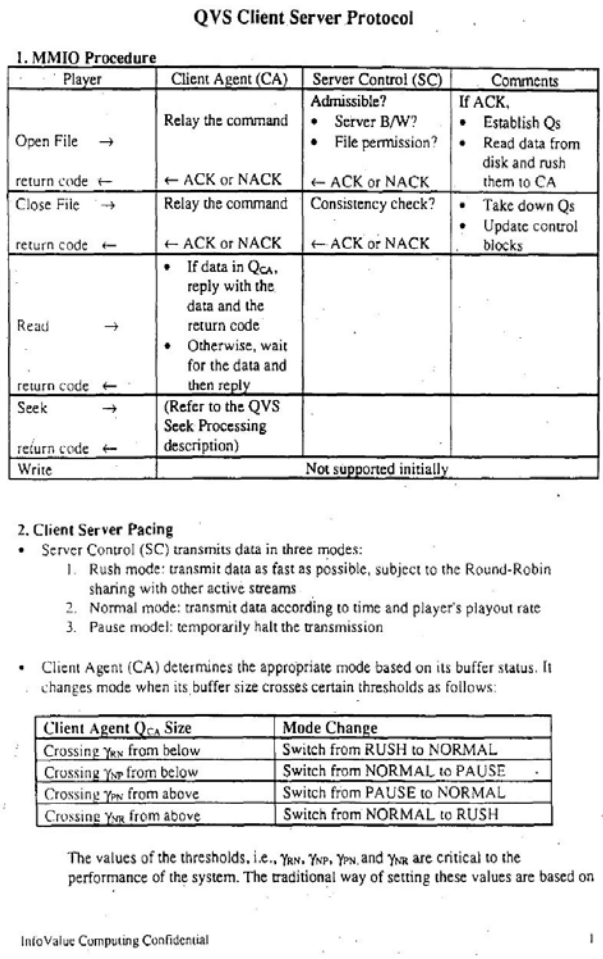
Figure 1 is a schematic illustration showing a client machine 20 receiving data streamed from a server machine 21 over a network. Data packets are loaded into a "server control stream buffer" 1 for streaming over a data channel 6. Streamed packets are accumulated in a "client agent packet buffer" 30 for playback. *Id.* at 4:65−5:44.

Chen describes "NORMAL," "RUSH," and "PAUSE" transmission modes for streaming from a server to a user. *Id.* at 6:1−15. It describes a "Water Mark" model for buffering streaming content and "draws a parallel between the client agent buffer and a water bucket with a spout at the bottom

that brings water to a person." *Id.* at 6:16−19. A bucket has high and low "water marks." *Id.*at 16:28. Water exits the bucket through a spout similar to data exiting a packet buffer as its content is delivered to a user. *See id.* at 6:16−54. When water in the bucket is at a level between the water marks, transmission occurs in the normal mode. *Id.* at 28–32. The normal mode carries out frame level pacing, i.e., transmission at the playback rate. *Id.* at 10:3−4. When the amount of data falls below the low mark, the transmission mode changes to "rush." *Id.* at 6:42−47. In the rush mode, frame level pacing is ignored and data is transmitted as fast as possible. *Id.* at claims 18, 29; Fig. 6.

*2. Chen FH (*E*x. 1005)*

Chen FH, from which issued Chen, the patent applicant submitted a Declaration in accordance with 37 C.F.R. § 1.131 for the purpose of predating ("swearing behind") a cited reference. Ex. 1005, 77−79. The Declaration references a "Quick Video Server" ("QVS Sever") exhibit document alleged by Petitioner to describe a commercial embodiment of Chen. *Id.* at 77. The Declaration includes a claim chart mapping the technical documents provided for the QVS server to the then pending claims. *Id.* at 112–19. Chen FH describes a protocol used by the QVS server and is reproduced below. Ex. 1005, 86.



QVS Client Server Protocol

1. MMIO Procedure

Player	Client Agent (CA)	Server Control (SC)	Comments
Open File →	Relay the command	Admissible? • Server B/W? • File permission?	If ACK, • Establish Qs • Read data from disk and rush them to CA
return code ←	← ACK or NACK	← ACK or NACK	
Close File →	Relay the command	Consistency check?	• Take down Qs • Update control blocks
return code ←	← ACK or NACK	← ACK or NACK	
Read →	• If data in Q_{CA}, reply with the data and the return code • Otherwise, wait for the data and then reply		
return code ←			
Seek →	(Refer to the QVS Seek Processing description)		
return code ←			
Write	Not supported initially		

2. Client Server Pacing

- Server Control (SC) transmits data in three modes:
  1. Rush mode: transmit data as fast as possible, subject to the Round-Robin sharing with other active streams
  2. Normal mode: transmit data according to time and player's playout rate
  3. Pause mode: temporarily halt the transmission

- Client Agent (CA) determines the appropriate mode based on its buffer status. It changes mode when its buffer size crosses certain thresholds as follows:

Client Agent Q_{CA} Size	Mode Change
Crossing γ_{RN} from below	Switch from RUSH to NORMAL
Crossing γ_{NP} from below	Switch from NORMAL to PAUSE
Crossing γ_{PN} from above	Switch from PAUSE to NORMAL
Crossing γ_{NR} from above	Switch from NORMAL to RUSH

The values of the thresholds, i.e., γ_{RN}, γ_{NP}, γ_{PN}, and γ_{NR} are critical to the performance of the system. The traditional way of setting these values are based on

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The QVS Server Protocol describes "pause," "normal," and "rush" transmission modes. Rush mode is described as "transmit data as fast as possible, subject to the Round-Robin sharing with other active streams." *Id.*

For purposes of this decision, we consider Chen FH to be a publication. *In re Wyer*, 655 F.2d 221, 226–27 (CCPA 1981) and *Bruckelmyer v. Ground Heaters, Inc.*, 445 F.3d 1374, 1378–79 (Fed. Cir. 2006) establish that an application underlying a published patent, such as the Chen FH in the present case, is a printed publication. Contrary to Patent Owner's contentions, *Bruckelmyer* does not require that an issued patent suggests turning to the underlying application in order to establish the file history was publicly accessible. Prelim. Resp. 11–12 (citing *Bruckelmyer*,

445 F.3d at 1379). Instead, as discussed in *In re Wyer*, the abstract of the issued patent is sufficient to indicate the subject matter and substance of the underlying patent application and establish its public accessibility. 655 F.2d 2 at 227; *see also Bruckelmyer*, 445 F.3d at 1379 (noting sufficiency of abstract in *In re Wyer*). For purposes of this Decision and based on the present record, we determine that Chen FH is available as prior art against the challenged claims.

3. Analysis

Petitioner contends that the combination of Chen and Chen FH discloses the limitation that "the media data elements is sent at a rate that matches the constant fill rate of a server buffer" as recited in claims 1, 3–5, 8, 9, 12, and 14–16. Pet. 19. Specifically, Petitioner contends that Chen and Chen FH disclose that because Chen's server includes a stream buffer that has only 1–5 frames when the system is in normal mode, the stream buffer is emptying at about the playback rate and the stream buffer fills at "about" the playback rate to avoid overflow or underflow conditions. Pet. 19 (citing Ex. 1003 ¶ 63).

Patent Owner contends that neither Chen nor the Chen FH discloses that "the media data elements is sent at a rate that matches the constant fill rate of a server buffer." Prelim. Resp. 25–27. Specifically, Patent Owner argues that Petitioner's reliance on the small number of frames in the server buffer is not relevant to the server buffer filling and sending limitation. *Id*. at 26. Instead, Patent Owner argues that Chen discloses a server buffer but it does not teach that data flows out of the server at a rate that matches the constant fill rate of data coming into the buffer. *Id*. at 27.

Based on the record before us, Petitioner has failed to show that Chen and Chen FH teach or suggest that the server buffer in Chen fills at a constant rate that matches the rate of data coming out of the buffer. Petitioner's citations to Chen (Pet. 19 (citing Ex. 1004, 5:17–34) and Pet. 31 (citing Ex. 1004, 9:21–30, claim 42)) and the Polish Declaration (Ex. 1003 ¶ 63) do not demonstrate that the data rate out of the server matches the data rate into its buffer and is "constant." Indeed, Petitioner's argument and evidence fails to address whether the rate is constant. In addition, we do not find the argument's reliance on the small number of frames establishes that the rate of filling the server buffer is about at about playback rate. In sum, Petitioner has not provided persuasive evidence that Chen and Chen FH teach that "the media data elements is sent at a rate that matches the constant fill rate of a server buffer," which appears in every challenged claims of the '611 patent.

Based on the foregoing, we find Petitioner has not demonstrated that there is a reasonable likelihood that it would prevail in showing that claims 1–18 are obvious in view of Chen and Chen FH.

C. Chen, Chen FH, and Carmel

Petitioner asserts that if a different construction of "constant fill rate" is adopted by the Board, Carmel discloses the claim limitations that recite this claim phrase. Pet. 57–58.

Carmel discloses Network Media Streaming via real-time broadcasting from a transmitting computer to client computers over a network, including providing at the transmitting computer a data stream having a given data rate, and dividing the stream into a sequence of slices, each slice having a predetermined data size associated therewith. Ex. 1009,

[54], [57]. Carmel discloses that the slices are encoded in a corresponding sequence of files, each file having a respective index, and the sequence is uploaded to a server at an upload rate generally equal to the data rate of the stream, such that the one or more client computers can download the sequence over the network from the server at a download rate generally equal to the data rate. *Id*. at [57].

We are not persuaded by Petitioner's argument that the disclosure in Carmel related to uploading media data elements to the server teaches or suggests that "the media data elements is sent at a rate that matches the constant fill rate of a server buffer" as recited in the challenged claims. Petitioner has not adequately shown that Carmel, which does not discuss the fill rate of server buffers, discloses that the rate of data flowing into the server buffer matches the rate of data flowing out of the server buffer. Petitioner has not provided persuasive evidence or arguments that Carmel in combination with Chen and Chen FH discloses the matching constant fill rate limitation.

Accordingly, we find that Petitioner has failed to show that Chen, Chen FH and Carmel render claims 1–18 obvious.

D. Chen, Chen FH, Carmel, and ISO-11172

Petitioner asserts that if a different construction of "constant fill rate" is adopted by the Board, Chen, Chen FH, Carmel, and ISO-11172 disclose the claim limitations that recite this claim phrase. Pet. 58–59. Petitioner's arguments suffer from the same deficiency identified above for the ground based on Chen and Chen FH and the ground based on Chen, Chen FH, and Carmel. Petitioner's alternative argument is based on the ISO-11172

disclosures of constant bit-rate (CBR) encoding of multimedia. Pet. 59 (citing Ex. 1007, 22; Ex. 1008, 27; Ex. 1003 ¶ 77).

We find that Petitioner's argument that "[b]y using a constant bit rate, the server will have a constant fill rate when the server buffer is filled at the playback rate as taught by Carmel" (Pet. 59 (citing Ex. 1003 ¶ 79)), is conclusory and not persuasive. Petitioner has not shown how the encoding of multimedia, as disclosed in the MPETG-1 standard of ISO-11172, discloses "the media data elements is sent at a rate that matches the constant fill rate of a server buffer" as recited in the challenged claims, such that the rate of data flowing into the server buffer matches the rate of data flowing out of the server buffer. We do not find convincing Petitioner's argument or evidence that CBR encoding as applied to Chen teaches that the server buffer fill and outflow rates match. Pet. 58–59.

Based on the record before us, we determine that Petitioner has not demonstrated that there is a reasonable likelihood that it would prevail in showing that Chen, Chen FH, Carmel, and ISO-11172 render claims 1–18 obvious.

III. CONCLUSION

For the foregoing reasons, we determine that the information presented in the Petition does not establish a reasonable likelihood that Petitioner would prevail in establishing that claims 1–18 are unpatentable under 35 U.S.C. § 103 as obvious in view of: (1) Chen and Chen FH; (2) Chen, Chen FH, and Carmel; and (3) Chen, Chen FH, Carmel, and ISO-11172.

IV. ORDER

Accordingly, it is

ORDERED that pursuant to 35 U.S.C. § 314, an *inter partes* review is hereby denied as to all grounds raised in the Petition for the reasons stated above and no trial is instituted.

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