

NOTE: This disposition is nonprecedential.

**United States Court of Appeals  
for the Federal Circuit**

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**WAG ACQUISITION, LLC,**  
*Appellant*

v.

**WEBPOWER, INC., FRIENDFINDER NETWORKS  
INC., STREAMRAY INC., WMM, LLC, WMM  
HOLDINGS, LLC, MULTI MEDIA, LLC, DUODECAD  
IT SERVICES LUXEMBOURG S.A.R.L., ACCRETIVE  
TECHNOLOGY GROUP, INC., ICF TECHNOLOGY,  
INC., RISER APPS LLC, STREAMME, INC., FKA  
VUBEOLGY, INC.,**  
*Appellees*

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2018-1617

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Appeal from the United States Patent and Trademark  
Office, Patent Trial and Appeal Board in No. IPR2016-  
01238.

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Decided: August 26, 2019

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RONALD ABRAMSON, Liston Abramson LLP, New York,  
NY, argued for appellant. Also represented by ARI JASON  
JAFFESS.

JONATHAN L. FALKLER, Venable LLP, Washington, DC, argued for all appellees. Appellees WebPower, Inc., FriendFinder Networks Inc., Streamray Inc., WMM, LLC, WMM Holdings, LLC, Multi Media, LLC also represented by FRANK M. GASPARO, TODD M. NOSHER, New York, NY.

KEVIN MICHAEL O'BRIEN, Baker & McKenzie LLP, Washington, DC, for appellee Duodecad IT Services Luxembourg S.A.R.L.

BRIAN G. BODINE, Lane Powell PC, Seattle, WA, for appellees Accretive Technology Group, Inc., ICF Technology, Inc., Riser Apps LLC, StreamMe, Inc. Also represented by ALAN D. MINSK.

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Before NEWMAN, CHEN, and STOLL, *Circuit Judges*.

STOLL, *Circuit Judge*.

WebPower, Inc. sought inter partes review of claims 1–28 of U.S. Patent No. 8,122,141 (the '141 patent) before the U.S. Patent and Trademark Office's Patent Trial and Appeal Board.<sup>1</sup> The Board instituted review of claims 10–23 of the '141 patent and, in its final written decision, found all of these claims unpatentable. WAG Acquisition, LLC, owner of the '141 patent, appeals the Board's decision as to claims 10–18. Because the Board's validity analysis rests on an incorrect claim construction, we vacate the decision

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<sup>1</sup> FriendFinder Networks Inc., Steamray Inc., WWM, LLC, WWM Holdings, LLC, Multi Media, LLC, Duodecad IT Services Luxembourg S.A.R.L., Accretive Technology Group, Inc., ICF Technology, Inc., Riser Apps LLC, and StreamMe, Inc. joined as parties to the proceeding on June 5, 2017.

as to the appealed claims and remand for further proceedings consistent with this opinion.

## BACKGROUND

### I

The '141 patent discloses a buffering system for streaming media, such as audio/video, on the Internet. '141 patent col. 1 ll. 30–33. At the time of the invention, users attempting to stream media over the Internet experienced persistent interruptions in playback due to poor connection quality, degradation of bandwidth, or congestion. *Id.* at col. 2 ll. 10–30. Prior art solutions to this issue incorporated a user buffer, which would store audio and/or video data in the user's computer so that playback could continue in the event of an interruption in the data transmission. *Id.* at col. 2 ll. 35–38. With this prior art buffer, playback would not begin until the buffer was filled to a specified level and, if the buffer became fully depleted, playback would pause until the buffer could be refilled. *Id.* at col. 2 l. 64–col. 3 l. 7. As noted in the specification, “[b]ecause transmission of the data to the user takes place at the rate it is played out, the user’s buffer level can never be increased or replenished while it is playing.” *Id.* at col. 2 l. 65–col. 3 l. 1. Users thus experienced both a delayed start to viewing streamed content and a higher likelihood of interruptions as the buffer could not be refilled during playback.

The '141 patent specification describes two solutions to this problem. The first involves maintaining both a server-side buffer and a user-side buffer, with the server-side buffer storing a certain amount of data elements for transmission to the user. *Id.* at col. 4 ll. 58–66. When a user initiates streaming, the server sends the stored data “at the highest rate that the data connection between the server and user computer will support until the predetermined amount of data that had been stored in the server buffer has been transferred to the user’s computer.” *Id.* at col. 5

ll. 57–61. The user’s buffer “is built up while the audio is playing, and can be restored if diminished by data transmission interruptions.” *Id.* at col. 9 ll. 47–49. This is because, if a user buffer is not full, “data is transmitted from the server more rapidly than it is played out by the user system,” restoring the buffer to a full state. *Id.* at col. 9 ll. 51–54. The server keeps track of the last data element that has been sent to each user by way of a software “pointer” that alerts the server when a data transmission has been interrupted and identifies the last data element that had been sent to that user when the interruption occurred. *Id.* at col 7 ll. 15–27.

Like the first solution, the second solution incorporates a server-side buffer that stores sequentially numbered media data elements for transmission to a user buffer. *Id.* at col. 8 ll. 35–38. Instead of using a pointer, however, “the user computer, not the server, maintains the record of the highest data element number stored in the user computer buffer.” *Id.* at col. 8 ll. 50–52. Using “standard data communications protocol techniques such as TCP, the user computer transmits a request to the server to send one or more data elements, specifying the serial numbers of the data elements.” *Id.* at col. 8 ll. 42–46. The requested data “will be transmitted to the user computer as fast as the data connection between the user computer and the server will allow.” *Id.* at col. 8 ll. 52–55.

On appeal, WAG focuses on claims 10 and 15, which recite as follows:

10. A server 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, said user system being assumed to have a media player for receiving and playing the streaming media on said user system,

which is operable to obtain media data elements from said server by transmitting requests to said server to send one or more specified media data elements, said server comprising

at least one data storage device, memory for storing machine-readable executable routines and for providing a working memory area for routines executing on the server, a central processing unit for executing the machine-readable executable routines, an operating system, at least one connection to the communications medium, and a communications system providing a set of communications protocols for communicating through said at least one connection;

a machine-readable, executable routine containing instructions to cause the server to assign serial identifiers to the sequential media data elements comprising the program;

a machine-readable, executable routine containing instructions to cause the server to receive requests from the user system for one or more media data elements specifying the identifiers of the requested data elements; and

a machine-readable, executable routine containing instructions to cause the server *to send media data elements to the user system responsive to said requests, at a rate more rapid than the rate at which said streaming media is played back by a user.*

15. The server of claim 10, wherein said server *does not maintain a pointer into a buffer* established within said server, for each said user.

*Id.* at col. 13 l. 63–col. 14 l. 28, col. 14 ll. 38–40 (emphases on disputed claim limitations).

## II

On January 4, 2017, the Board instituted review of claims 10–11 and 13–18 of the '141 patent on the ground that these claims were anticipated by U.S. Patent No. 6,389,473 (“Carmel”).<sup>2</sup> The Board also instituted review of claim 12 on the ground that it would have been obvious over Carmel in view of International Standard ISO/IEC 11172.<sup>3</sup>

Carmel discloses a method for streaming live or prerecorded media from a server to multiple client computers over the Internet. *See* Carmel at Abstract. Carmel discloses dividing content into “slices,” each containing a segment of video and/or audio data. *Id.* at col. 7 ll. 22–26. The slices are labeled based on time interval, mapped to an index, and uploaded to the server. *Id.* at col. 7 ll. 27–34. When a user connects to the data stream, the user computer downloads the index file to identify the point in the stream at which to begin. *Id.* at col. 8 ll. 1–5. The user can choose to join the stream in substantially real time or,

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<sup>2</sup> The Board also instituted review of claims 19–23 on multiple grounds. WAG has not challenged the Board’s unpatentability determinations with respect to these claims.

<sup>3</sup> International Standard ISO/IEC 11172-1, -2, -3, *Information Technology—Coding of moving pictures and associated audio for digital storage media at up to about 1,5 Mbit/s* (ISO/IEC, August 1993).

alternatively, start the stream at an earlier point in the broadcast. *Id.* at col. 8 ll. 5–8.

Carmel teaches several methods for recovering from lag caused by interruptions in the data stream. First, the data transmission rate can be increased by altering the size of each data slice sent from the server to the user computer. *Id.* at col. 7 ll. 39–44. Second, the compression level of the data can be adjusted to reflect any change in available bandwidth. *Id.* at col. 7 ll. 44–49. Finally, the client can open additional links with the server in the event of lag “in order to increase the overall data rate.” *Id.* at col. 10 ll. 55–63.

The parties’ dispute before the Board centered primarily on whether Carmel discloses “instructions to cause the server to send media data elements to the user system responsive to said requests, at a rate more rapid than the rate at which said streaming media is played back by a user” in independent claim 10. ’141 patent col. 14 ll. 24–28. WebPower argued that Carmel’s description of the responsive adjustments made to accommodate the detection of lag includes sending media data elements at a rate more rapid than the playback rate. Specifically, WebPower argued that Carmel discloses using multiple links to increase the overall data rate, and that it expresses an objective of sending multimedia data at a rate “generally equal to or faster” than the playback rate. *See Carmel* col. 2 ll. 56–59. In response, WAG argued that the data rate referred to in Carmel is the *overall* data rate, rather than the rate at which individual data slices are sent as required by claim 10.

The Board first addressed what it viewed as WAG’s implicit claim construction argument that the “rate” in claim 10 refers to “the rate at which data elements are sent on an *individual link* to the user system” as opposed to the “overall rate achieved with *multiple links* to the user system.” *WebPower, Inc. v. WAG Acquisition, LLC*, No. IPR1016-01238, 2017 WL 6597962, at \*4 (P.T.A.B. Dec. 26,

2017) (emphases in original). The Board found that “nothing in the express language of the claim, nor in the Specification of the ’141 patent . . . compels a construction of ‘rate’ limited to the rate at which data are sent over an individual link.” *Id.* While the Board agreed with WAG that Carmel describes “transmission on individual links . . . below the generation rate,” it found that Carmel’s disclosure of an overall transmission rate across multiple links that was faster than the playback rate was sufficient to disclose the limitation at issue in claim 10. *Id.* at \*7–8.

The parties also disputed whether Carmel anticipates claim 15 of the ’141 patent. Claim 15 depends from claim 10 and recites the negative limitation that “said server does not maintain a pointer into a buffer established within said server, for each said user.” ’141 patent col. 14 ll. 38–40. The Board rejected WAG’s argument that use of a server-side pointer was inherent in Carmel, finding that “features of Carmel, including disclosure of client-side control, a lack of specialized server software, and similar pointerless protocols as used in the ’141 patent, meet the claim limitation.” *WebPower*, 2017 WL 6597962 at \*11. The Board thus held that Carmel anticipates claim 15.

The Board similarly concluded that dependent claims 11–14 and 16–18 were unpatentable, noting that WAG did not argue the patentability of these claims separately from claim 10. WAG appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

#### DISCUSSION

WAG makes two primary arguments on appeal: (1) that the Board erred in its construction of claim 10 and hence its determination that Carmel discloses the “rate” limitation in claim 10; and (2) that the Board erred in its determination that Carmel discloses the negative pointer limitation in claim 15. We address these issues in turn.



## I

We first address the Board’s finding that Carmel anticipates claim 10, and in particular that Carmel discloses the “rate” limitation at issue. The Board premised its findings on its construction of the term “rate” in this limitation. The Board construed “rate” in light of the disclosures in Carmel, concluding that “nothing in the express language of the claim, nor in the [s]pecification of the ’141 patent . . . compels a construction of ‘rate’ limited to the rate at which data are sent over an individual link.” *WebPower*, 2017 WL 6597962, at \*4. Accordingly, the Board found that Carmel’s description of using multiple links to achieve an *overall* data rate that is at times more rapid than the playback rate discloses claim 10’s “rate” limitation. We disagree.

We review the Board’s construction of a claim term de novo, reviewing any underlying fact findings for substantial evidence. *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015); *Praxair Distrib., Inc. v. Mallinckrodt Hosp. Prods. IP Ltd.*, 890 F.3d 1024, 1031 (Fed. Cir. 2018) (citing *HTC Corp. v. Cellular Commc’ns Equip., LLC*, 877 F.3d 1361, 1367 (Fed. Cir. 2017)). While the words of a claim “are generally given their ordinary and customary meaning,” a claim term is read “not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc) (quoting *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). During an inter partes review, claims are given the “broadest reasonable interpretation” consistent with the specification.<sup>4</sup> *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2146 (2016).

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<sup>4</sup> This standard has recently changed. For petitions filed on or after November 13, 2018, the Board will apply

In our view, the “rate” in claim 10 refers to the rate at which each requested media data element is transmitted from the server to the user computer. This construction stems from the plain language of the claim, which requires the server “to send media data elements to the user system *responsive to said requests*” at a rate more rapid than the playback rate. ’141 patent col. 14 ll. 24–28 (emphasis added). The antecedent basis for “said requests” is contained in the prior limitation, which identifies “*requests from the user system for one or more media data elements specifying the identifiers of the requested data elements.*” *Id.* at col. 14 ll. 21–23 (emphases added). The rate limitation in claim 10 therefore refers to the rate at which *requested* media data elements are sent, not the overall rate at which data is transmitted from the server to the user computer.

Our conclusion is further supported by the patent specification, which discloses that:

[T]he user computer transmits a request to the server to send one or more data elements, specifying the serial numbers of the data elements. The server responds by sending the requested data elements. . . . The media data will be transmitted to the user computer as fast as the data connection between the user computer and the server will allow.

*Id.* at col. 8 ll. 42–55. Construing the claimed “rate” as the rate at which each requested data element is transmitted from the server to the user computer is consistent with the

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the *Phillips* claim construction standard. 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 (Oct. 11, 2018) (to be codified at 37 C.F.R. pt. 42).

specification and the operational intent of the invention described in the specification.

We thus disagree with the Board's conclusion that "nothing in the express language of the claim, nor in the Specification of the '141 patent . . . compels a construction of 'rate' limited to the rate at which data are sent over an individual link." *WebPower*, 2017 WL 6597962, at \*4. We note that WAG's patent specification does not even use the terminology "individual link" or "multiple links." This terminology comes from the prior art Carmel reference. Rather, the claims and patent specification consistently refer to the rate at which each requested data element is transmitted from the server to the user computer. We thus construe the claim term "rate" accordingly.

WAG argues that, under this construction, Carmel does not disclose the claimed "rate." For its part, WebPower argues that, even under this construction, Carmel teaches the claimed "rate."<sup>5</sup> Because the Board did not consider Carmel's disclosures under the proper construction, we remand to the Board for it to resolve this factual dispute in the first instance.

## II

WAG also appeals the Board's finding that Carmel anticipates claim 15 of the '141 patent. While claim 15

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<sup>5</sup> WebPower also asserts that WAG waived its claim construction argument by not raising it before the Board. We are not convinced. The Board concluded that the claim term required construction in order to resolve the factual dispute of anticipation, WAG raised its construction at oral argument when answering questions regarding anticipation, and WAG's proffered construction derives from the plain meaning of the claim terms. Under these particular circumstances, we conclude that WAG did not waive its position on claim construction.

depends from claim 10—issues about which we have remanded for further fact findings—we nonetheless address this dispute for purposes of judicial efficiency.

WAG argues that Carmel either expressly or inherently discloses the use of a pointer, and thus fails to disclose the negative limitation that the “server does not maintain a pointer into a buffer.” ’141 patent col. 14 ll. 38–40. Contrary to the Board’s findings, WAG argues that Carmel does not disclose sufficient client-side control to render the use of a pointer unnecessary. In order to anticipate a claim, a prior art reference must “disclose all elements of the claim within the four corners of the document.” *Microsoft Corp. v. Biscotti, Inc.*, 878 F.3d 1052, 1068 (Fed. Cir. 2017) (quoting *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1369, 1369 (Fed. Cir. 2008)). Anticipation is a question of fact, reviewed for substantial evidence. *Id.* We are not convinced by WAG’s arguments. A reasonable fact finder could find that Carmel does not require use of a pointer for the reasons stated by the Board: Carmel emphasizes client control, lacks specialized server software, and uses pointerless protocols. While Carmel does not specify that a pointer is *not* used, nothing in the record suggests that a pointer *must* be used. The Board’s findings are therefore supported by substantial evidence.

#### CONCLUSION

For the foregoing reasons, we vacate the decision of the Board and remand for further proceedings consistent with this opinion.

#### VACATED AND REMANDED

#### COSTS

Costs to appellant.