

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TERREMARK NORTH AMERICA LLC, VERIZON BUSINESS
NETWORK SERVICES INC., VERIZON SERVICES CORP., and
COXCOM, LLC,
Petitioner,

v.

JOAO CONTROL & MONITORING SYSTEMS, LLC,
Patent Owner.

Case IPR2015-01477
Patent 6,587,046 B2

Before HOWARD B. BLANKENSHIP, STACEY G. WHITE, and
JASON J. CHUNG, *Administrative Patent Judges*.

BLANKENSHIP, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
Inter Partes Review
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. BACKGROUND

Terremark North America LLC, Verizon Business Network Services Inc., Verizon Services Corp, and CoxCom, LLC (collectively, “Petitioner”) filed a request for an *inter partes* review of claims 30, 33, 53, 85–88, and 90 of U.S. Patent No. 6,587,046 B2 (Ex. 1001, “the ’046 patent”) under 35 U.S.C. §§ 311–319. Paper 2 (“Petition” or “Pet.”).¹ Patent Owner Joao Control & Monitoring Systems, LLC filed a preliminary response. Paper 9 (“Prelim. Resp.”). The Board instituted an *inter partes* review of claims 30, 33, 53, 85–88, and 90 on asserted grounds of anticipation and obviousness. Paper 10 (“Dec. on Inst.”).

Subsequent to institution, Patent Owner filed a patent owner response. Paper 19 (“PO Resp.”). Petitioner filed a reply. Paper 23 (“Pet. Reply”).

Patent Owner states that it “hereby disclaims claims 30, 53, and 85–88.” PO Resp. 21. Patent Owner does not present any arguments in its Patent Owner Response directed to those claims. A review of the USPTO electronic file of the ’046 patent indicated that Patent Owner had not filed a statutory disclaimer. In an Order entered December 7, 2016, we notified Patent Owner that if it failed to file a notice in this proceeding indicating that it has filed a statutory disclaimer for claims 30, 53, and 85–88 in the patent, the claims will be held unpatentable. Paper 28. The period provided for filing of such notice has passed without response from Patent Owner. *See id.* at 2. Accordingly, we determine that claims 30, 53, and 85–88 are

¹ Time Warner Cable Inc. and iControl Networks, Inc. also were named as petitioners. We granted a joint motion to terminate the *inter partes* review with respect to those parties. Paper 22.

unpatentable. The patentability of claims 33 and 90 remain for consideration in this Final Written Decision.

An oral hearing concerning this case was held on September 9, 2016. The record contains a transcript of the hearing. Paper 27 (“Tr.”).

The Board has jurisdiction under 35 U.S.C. § 6(b). This final written decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73.

For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 33 and 90 of the ’046 patent are unpatentable.

A. Related Proceedings

Petitioner identifies twenty-seven lawsuits involving the ’046 patent filed in U.S. District Courts in multiple States. Pet. 3–4. According to Patent Owner, eleven are ongoing. Paper 5, 2–4.

B. The ’046 Patent

The ’046 patent relates to including a processing device for receiving video information recorded by a video recording device or a camera, wherein the video recording device or camera is located at a premises, and the processing device is located at a location remote from the premises. Ex. 1001, at [57]. The video information is transmitted to a communication device over at least one of the Internet and the World Wide Web (WWW). *Id.*

C. Illustrative Claims

Only (dependent) claims 33 and 90 remain for consideration in this *inter partes* review. Claims 30 and 33, reproduced below, are illustrative.

30. A monitoring apparatus, comprising:

a processing device, wherein the processing device receives video information recorded by at least one of a video recording device and a camera, wherein the at least one of a video recording device and a camera is located at a premises, and wherein the processing device is located at a location remote from the premises,

wherein the processing device receives a signal transmitted from a communication device, wherein the communication device is located at a location remote from the processing device and remote from the premises, wherein the video information is transmitted from the processing device to the communication device in response to the signal, and further wherein the video information is transmitted to the communication device on or over at least one of the Internet and the World Wide Web.

33. The apparatus of claim 30, wherein the video information is real-time video information or live video information.

D. Asserted Prior Art

Ken Goldberg et al., BEYOND THE WEB: MANIPULATING THE REAL WORLD, Computer Networks and ISDN Systems 28 (1995) at 209–219, Elsevier Science B.V. (“Goldberg”) (Ex. 1006)

Peter L. Fuhr et al., REMOTE MONITORING OF INSTRUMENTED STRUCTURES USING THE INTERNET INFORMATION SUPERHIGHWAY, SECOND EUROPEAN

CONFERENCE ON SMART STRUCTURES AND MATERIALS, Glasgow 1994,
Session 3, at 148–151 (“Fuhr”) (Ex. 1005)²

E. Asserted Grounds of Unpatentability

With respect to remaining claims 33 and 90, we instituted *inter partes* review on the following grounds of unpatentability under 35 U.S.C. §§ 102 and 103(a) (Dec. on Inst. 15–16):

Reference	Basis (35 U.S.C. §)	Claims
Fuhr	103(a)	33 and 90
Goldberg	102(a)	33 and 90

II. ANALYSIS

A. Claim Construction

In an *inter partes* review, the “broadest reasonable interpretation” standard is applicable only to unexpired patents. *See* 37 C.F.R. § 42.100(b) (“A claim in an unexpired patent that will not expire before a final written decision is issued shall be given its broadest reasonable construction in light of the specification of the patent in which it appears.”). In our Decision on Institution, we determined that the *Phillips* standard³ of claim construction used in district court patent litigation would apply because the patent would expire prior to the end of the one-year period allotted for an *inter partes* review. Dec. on Inst. 8.

² We entered as Exhibit 3001 a copy of the book SECOND EUROPEAN CONFERENCE ON SMART STRUCTURES AND MATERIALS, Alister Mcdonach et al., Editors, Proc. SPIE 2361 (1994) (384 pages). The Fuhr article appears at book pages 148 through 151.

³ *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc)).

The term of a patent grant begins on the date on which the patent issues and ends 20 years from the date on which the application for the patent was filed in the United States “or, if the application contains a specific reference to an earlier filed application or applications under section 120, 121, or 365(c) of this title, from the date on which the earliest such application was filed.” 35 U.S.C. § 154(a)(2) (2002). According to a Certificate of Correction entered in the ’046 patent, the earliest patent application referenced for the benefit of priority under 35 U.S.C. § 120 was filed on March 27, 1996. Ex. 1001, 83; *see also id.* at col. 1, ll. 4–20 (earliest priority claim to application filed Mar. 27, 1996). The term of the ’046 patent, thus, was set to expire no later than March 27, 2016.

On this record, we conclude that the term of the ’046 patent has expired. As noted *supra*, for claims of an expired patent, the Board’s claim interpretation is similar to that of a district court. *See In re Rambus Inc.*, 694 F.3d 42, 46 (Fed. Cir. 2012). “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, however, a presumption that a claim term carries its ordinary and customary meaning. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002).

B. Claim Terms

The Applicant provided definitions for certain terms and phrases appearing in the claims during prosecution of the patent application that

issued as U.S. Patent No. 7,277,010 (“the ’010 patent”) (Ex. 2011) and during prosecution of the patent application that issued as U.S. Patent No. 7,397,363 (“the ’363 patent”) (Ex. 2012). Prelim Resp. 22, 25–27. The ’046 patent and the ’010 and ’363 patents all descend from U.S. Patent Application Nos. 08/683,828 and 08/622,749. *See* Ex. 1001, at [63];⁴ Prelim. Resp. 22–23.

For purposes of our Decision on Institution, in view of the ’046 patent and related prosecution histories, we adopted constructions for certain claim terms. Patent Owner agrees with our constructions. PO Resp. 12–13.

We construe “video information” to mean “data or information containing, pertaining to or representing, an image or images or a photograph.” PO Resp. 12; *see also* Prelim. Resp. 25.

Patent Owner submits that “real-time video information” should be construed as synonymous with “live video information,” with each meaning “video information” that is broadcast or transmitted as the video information event occurs. PO Resp. 13–14. Patent Owner refers to a Memorandum and Order from the U.S. District Court for the Southern District of New York, which construes those terms in the ’046 patent. *Id.* (citing Ex. 2013, 17). We adopt the construction set forth by the District Court and as advocated by Patent Owner. Petitioner does not oppose that construction. *See* Pet. Reply 2 (“Petitioners have no issue with the wording of this construction, provided it is understood that the construction does not require instantaneous transmission of video information.”).

⁴ We note that this portion of the ’046 patent has been modified by the certificate of correction, which may be found on page 83 of the Exhibit.

C. Asserted Grounds

1. Weight to be Given the Testimony of Petitioner's Expert

Patent Owner argues that the testimony of Petitioner's expert, Mr. Richard Bennett, should be given little or no weight because his background fails to meet the educational requirements that the expert himself indicates as necessary for one of ordinary skill in the art. PO Resp. 15–21.

Initially, we note that Patent Owner has not filed any evidentiary objections with respect to Mr. Bennett's testimony, nor sought to preclude him from testifying as an expert witness. In any event, to testify as an expert under Federal Rule of Evidence 702, a person need not be a person of ordinary skill in the art, but rather may be "qualified in the pertinent art." *Sundance, Inc. v. DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1363–64 (Fed. Cir. 2008); *Mytee Prods., Inc. v. Harris Research, Inc.*, 439 F. App'x 882, 886–87 (Fed. Cir. 2011) (non-precedential) (upholding admission of the testimony of an expert who "had experience relevant to the field of the invention," despite admission that he was not a person of ordinary skill in the art).

We give appropriate weight to the testimony of Mr. Bennett as an individual with more than 30 years of industry experience in computers and networking, including the development of real-time video collaboration tools (Ex. 1003, 2) and software for a video-on-demand server (Ex. 1002 ¶ 12). *See generally* Ex. 1002 ¶¶ 5–12; Ex. 1003 (CV).

2. Goldberg

Goldberg describes a World Wide Web site that allows a user to interact with the "real world." The user can direct a camera provided on a

robot arm to move vertically or horizontally, allowing the user to view the image of the robot arm environment. Ex. 1006, Abstract. In the words of Goldberg:

At one end are WWW clients from around the world; at the other end is a robot arm combined with a camera. The robot and camera provide an updated image of the environment, which is combined with a schematic of the robot arm/workspace and control buttons to produce the final GIF image that is [sent] to users.

Ex. 1006, 212 (§ 5).⁵

3. Claims 33 and 90 — § 102 Goldberg

In its Petition, Petitioner contends that Goldberg anticipates independent claim 30, mapping the claimed “processing device” to Goldberg’s UNIX server, the claimed “communication device” to the user computer having a WWW user interface, and the claimed “video recording device or camera” to Goldberg’s disclosed camera. Pet. 30–34. For the additional limitation of independent claim 85, which recites “a transmitter, wherein the transmitter transmits the video information to a processing device,” Petitioner submits that Goldberg’s server C corresponds to the “transmitter,” with Server A corresponding to the “processing device.” Pet. 37; Ex. 1006, 212 (§ 5).

Claim 33 depends from claim 30 and further recites that the video information is real-time video information or live video information. According to Petitioner, Goldberg discloses live video feed as a feature of

⁵ In this Decision, we refer to the printed page numbers of the references rather than Exhibit page numbers.

the robotic camera. Pet. 35 (citing Ex. 1006 § 3 and Ex. 1002 (Bennett Decl.) ¶ 38). For the limitations of dependent claim 90, also reciting that the video information is real-time video information or live video information, the Petition refers to its earlier discussion of claim 33. *Id.* at 38.

Goldberg discloses that, because of the limitations of the HTML/HTTP environment as well as network traffic considerations, “the initial idea of a live video feed from the camera was dropped in order to maintain compatibility with all visual clients on the Web.” Ex. 1006, 210 (§ 3). Goldberg provides a footnote detailing “two possible fixes” to the deficiency, both of which involve implementing custom clients. *Id.* n.1. According to the reference, one solution is to “release specially modified clients that set up a two-way communication.” *Id.* The second is to use “some other software to display the current system on the user’s client workstation.” *Id.* Goldberg goes on to describe why the first option “would be difficult,” and describes problems that may be attendant with the second option. *Id.*

Mr. Bennett notes Goldberg’s disclosure that the “initial idea” of a live video feed from the camera was dropped. Ex. 1002 ¶ 38. Mr. Bennett submits that the camera disclosed in Goldberg “is capable of capturing and transmitting individual images, as well as live video.” *Id.* Patent Owner argues that Goldberg explicitly discloses that a live video feed is *not* used. PO Resp. 25.

Petitioner replies that although Goldberg did not implement the “live video feed embodiment,” Goldberg “conceived and disclosed it.” Pet. Reply 5; Tr. 9:3–13. Petitioner relies on the above-noted footnote in Goldberg,

which details the “two possible fixes” to implement a live video feed. *Id.* at 6–7.

A petitioner may challenge claims in an *inter partes* review “only on a ground that could be raised under section 102 or 103 and only on the basis of prior art consisting of patents or printed publications.” 35 U.S.C. § 311(b). The inquiry is not, therefore, whether Goldberg provides evidence that a system or apparatus within the scope of claim 33 or claim 90 was implemented prior to the effective filing date of the ’046 patent. The question is whether Goldberg describes the invention of claims 33 and 90 in accordance with the precepts of anticipation.

“Anticipation is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention.” *RCA Corp. v. Applied Digital Data Systems, Inc.*, 730 F.2d 1440, 1444 (Fed. Cir. 1984). “The identical invention must be shown in as complete detail as is contained in the patent claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989).

The expert testimony upon which the Petition relies does not provide sufficient support for anticipation. Mr. Bennett submits that the camera disclosed in Goldberg “is *capable of* capturing and transmitting individual images, as well as live video.” Ex. 1002 ¶ 38 (emphasis added). His Declaration does not allege that the artisan would understand that Goldberg *discloses* a system that includes live video. Further, Goldberg’s description of “two possible fixes” for a live video feed (Ex. 1006, 210 n.1) is in the form of an invitation for the artisan to investigate possible ways to supply a live video feed, as opposed to describing an invention in terms such that the

ordinary artisan would be placed in possession of it. *See In re Graves*, 69 F.3d 1147, 1152 (Fed. Cir. 1995) (“A reference anticipates a claim if it discloses the claimed invention ‘such that a skilled artisan could take its teachings *in combination with his own knowledge of the particular art and be in possession of the invention.*’” (quoting *In re LeGrice*, 301 F.2d 929, 936 (CCPA 1962))). Goldberg, however, describes a system having “a limited level of teleoperation.” Ex. 1006, 210 (§ 2).

In view of the foregoing, we determine that Petitioner has *not* demonstrated by a preponderance of the evidence claims 33 and 90 are unpatentable for anticipation by Goldberg.

4. Fuhr

Fuhr teaches performing sensor monitoring at a remote location, with the acquired information stored in another location accessible through the Internet global computer network. Ex. 1005, 148. In one application, data monitoring may include video cameras positioned at a dam. *Id.* at 149. Video frames are transmitted to a file on an Internet-host computer, providing worldwide Internet access and viewing of the video data using an Internet-based hypermedia browser. *Id.* at 150.

5. Claims 33 and 90 — § 103(a) Fuhr

Petitioner contends that independent claim 30 would have been obvious in view of Fuhr, mapping the limitations of the claim to disclosures in the reference. Pet. 16–21. Petitioner also maps the limitations of independent claim 85 to the reference, contending that the subject matter of that claim also would have been obvious. *Id.* at 21–23. For the subject

matter of dependent claims 33 and 90, each of which recites “wherein the video information is real-time video information or live video information,” Petitioner relies on Fuhr’s disclosure that “near realtime video images are placed into the appropriate Mosaic source location home page.” Pet. 25 (citing Ex. 1005, 105). Petitioner submits that the description of “near real-time” video images discloses or at least suggests real-time video information. *Id.* Further relying on the Bennett Declaration, Petitioner submits that one of ordinary skill in the art would have understood how to modify the camera system disclosed in Fuhr so that real-time video information is generated and would have been motivated to do so to provide real-time monitoring of the structure and environment being monitored. *Id.*; Ex. 1002 ¶ 32. We find Petitioner’s showing (see Pet. 25; Ex. 1002 ¶ 32) that a person having ordinary skill in the art would have modified Fuhr to teach real-time video information or live video information to be persuasive.

Patent Owner argues that Fuhr teaches away from the use of real-time or live video information. PO Resp. 21–24. Patent Owner submits that Fuhr discloses using video cameras to take “snapshots,” which the reference characterizes as “near realtime video images.” *Id.* at 22 (citing Ex. 1005, 150). Patent Owner argues that Fuhr teaches the *opposite* of what is claimed because the reference describes storing video frames at a source location home page for later access using Mosaic. *Id.* at 22–24. Patent Owner argues that, further, due to limited disk space, Fuhr does not store all the video frames captured by the cameras, but only the most recent 30 frames. *Id.*

Fuhr discloses:

Near realtime video images are placed into the appropriate Mosaic source location home page. All video images are not archived, due to limited physical disk space, but

rather have the last 30 frames temporarily stored. Viewing of the video frames is achieved using Mosaic on an Ethernet configured Internet accessible (IP - Internet Protocol addressed) microcomputer.

Ex. 1005, 150. Fuhr, thus, teaches temporary buffering of the last 30 frames for viewing, rather than storage of images for viewing at a later time. We disagree with Patent Owner's assessment that the Fuhr system "is configured to *store* video frames at the Mosaic source location home page for later (i.e., deferred) transmission to a viewer when the viewer accesses the Mosaic source location home page using Mosaic." PO Resp. 23–24.

Moreover, Fuhr's teaching of "[n]ear realtime video images" falls within the meaning of real-time or live video information as advocated by Patent Owner, i.e., video information that is broadcast or transmitted as the video information event occurs. See Prelim. Resp. 25; § II.B, *supra*. In addition, Fuhr refers to images representing the Mosaic viewing of the video information as *realtime* "snapshots" from a video camera. Ex. 1005, 150–51 (describing Fig. 2 of the reference). We are persuaded that Fuhr's earlier modifier of "[n]ear" in describing "[n]ear realtime" video images reflects no more than the inherent electronic and network delays in transmission of the images. We observe that each of base claims 30 and 85 recites that the video information is transmitted "on or over at least one of the Internet and the World Wide Web." See *Paragon Sols., LLC v. Timex Corp.*, 566 F.3d 1075, 1088 (Fed. Cir. 2009) ("[W]hat the claims describe as 'displaying real-time data' cannot possibly mean displaying data literally instantaneously, because the claims themselves require a transmission that necessarily takes some time, however minute that might be.").

Further, a “snapshot” is within the meaning of “video information” as advocated by Patent Owner — data or information containing, pertaining to or representing, *an image or images or a photograph*. See § II.B, *supra*. Fuhr refers, in literal terms, to the “snapshots” as “realtime.” Ex. 1005, 150–51.

In view of the foregoing, we determine that Petitioner has demonstrated by a preponderance of the evidence claims 33 and 90 are unpatentable for obviousness in view of Fuhr.

III. CONCLUSION

Claims 30, 53, and 85–88 have been disclaimed and are unpatentable. Upon review of the Petition and supporting evidence, and Patent Owner’s evidence and arguments in response, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 33 and 90 are unpatentable under 35 U.S.C. § 103(a) for obviousness in view of Fuhr. Petitioner has *not* demonstrated by a preponderance of the evidence that claims 33 and 90 are unpatentable under 35 U.S.C. § 102(a) for anticipation by Goldberg.

IV. ORDER

It is

ORDERED that claims 30, 33, 53, 85, 86, 87, 88, and 90 of the ’046 patent are held unpatentable; and

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

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