

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNIFIED PATENTS, INC.,
Petitioner,

v.

UNILOC 2017 LLC,¹
Patent Owner.

Case IPR2017-02148
Patent 6,564,229 B1

Before SALLY C. MEDLEY, JOHN F. HORVATH, and
SEAN P. O'HANLON, *Administrative Patent Judges*.

O'HANLON, *Administrative Patent Judge*.

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

¹ At the time the petition was filed, Uniloc Luxembourg S.A. was the patent owner.

I. INTRODUCTION

A. Background

Unified Patents, Inc. (“Petitioner”) filed a Petition for *inter partes* review of claims 1–19 (all claims) of U.S. Patent No. 6,564,229 B1 (Ex. 1001, “the ’229 patent”). Paper 2 (“Pet.”), 3. Uniloc Luxembourg S.A., a predecessor in interest to Uniloc 2017 LLC (“Patent Owner”), filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). On April 17, 2018, we instituted an *inter partes* review of claims 1–5 and 7–9 on all grounds raised in the Petition (Paper 9, 37 (“Decision” or “Dec.”)); we did not institute review of claims 6 and 10–19.

On April 24, 2018, the Supreme Court issued its decision in *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348 (2018). In light of *SAS* and “Guidance on the Impact of SAS on AIA Trial Proceedings,” issued by the Office, April 26, 2018 (“Office Guidance”), we instituted review of all challenged claims and all grounds presented in the Petition. Paper 11. Thereafter, Patent Owner filed a Patent Owner Response. Paper 27 (“PO Resp.”).² Petitioner filed a Reply to the Patent Owner Response. Paper 42 (“Pet. Reply”).³ An oral hearing was held on December 18, 2018. A transcript of the hearing has been entered into the record. Paper 64 (“Tr.”).

Per our Scheduling Order, we notified the parties that “any arguments for patentability not raised in the [Patent Owner] response will be deemed waived.”⁴ Nonetheless, Petitioner bears the burden to show, by a

² A public version of the Response was filed as Paper 36.

³ A public version of the Reply was filed as Paper 43.

⁴ See Paper 10, 3; see also Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012) (a patent owner’s “response should identify

preponderance of the evidence, that the challenged claims are unpatentable. For the reasons that follow, we conclude that Petitioner has proven by a preponderance of the evidence that claims 1–5 and 7–9 of the ’229 patent are unpatentable. Petitioner has failed, however, to meet its burden of proof regarding the unpatentability of claims 6 and 10–19.

B. Related Matters

The parties indicate that the ’229 patent is the subject of several federal district court proceedings:

Uniloc USA, Inc. et al v. Square Enix, Inc., 2:17-cv-00302 (TXED);

Uniloc USA, Inc. et al v. Nexon America, Inc., 2:17-cv-00276 (TXED);

Uniloc USA, Inc. et al v. Big Fish Games, Inc., 2:17-cv-00172 (TXED);

Uniloc USA, Inc. et al v. Ubisoft, Inc., 2:17-cv-00175 (TXED);

Uniloc USA, Inc. et al v. Kaspersky Lab, Inc., 2:17-cv-00305 (TXED);

Uniloc USA, Inc. et al v. Akamai Technologies, Inc., 2:17-cv-00375 (TXED);

Uniloc USA, Inc. et al v. Big Fish Games, Inc., 2:17-cv-01183 (WAWD);

Uniloc USA, Inc. et al v. Akamai Technologies, Inc., 3:17-cv-02116 (TXND).

Pet. 1; Paper 3, 2. Petitioner indicates that “on June 19, 2018, the court in the related proceeding *Uniloc USA, Inc. et al v. Big Fish Games, Inc.*, 2:17-cv-01183 (WAWD) found claims 1-7, 10-13, and 16 of the 6,564,229 Patent

all the involved claims that are believed to be patentable and state the basis for that belief”).

directed to a patent-ineligible abstract idea and granted Defendant's Motion to Dismiss." Paper 22, 2.

C. The '229 Patent

The '229 patent discloses pausing move or copy (collectively referred to in the '229 patent as "copy") operations within a data processing system. Ex. 1001, 1:6–12, 19–23. The '229 patent explains that as computer systems grow in complexity, files that need to be copied increase in size. *Id.* at 1:24–25. Copying such large files requires substantial computer resources such that few resources remain for other computer operations, causing them to become extremely slow or to stall. *Id.* at 1:27–35.

Programs that copy files over the Internet often allow the user to stop the operation. *Id.* at 1:45–47. However, when copying is resumed, the cache must first be searched for files, or portions of files, that were previously transmitted, and files that are incomplete are often fully retransmitted from the server computer. *Id.* at 1:47–54.

The '229 patent sought to improve on prior systems by allowing the user to pause a copy operation. *Id.* at 2:10–13. When the user does so, the copy operation is suspended and information regarding the copy operation is retained so that the operation can be resumed. *Id.* at 2:13–15. An index file is created to capture the state of the copy operation at the time the pause was requested. *Id.* at 4:40–42. The index file can be created either in memory (e.g., if the pause is going to be brief) or as a file within a nonvolatile storage device (e.g., if the copying will be resumed after the user shuts down and reboots the computer system). *Id.* at 4:42–49. The index file may include such information as the index of the next block of data to be read from the

source file and copied to the destination file, the source file name, the destination file name, and the block size. *Id.* at 4:52–55. Upon receiving a resume request, the copy operation reads the index file to determine where (i.e., at which block) copying should resume, and then continues the copy operation starting at that block. *Id.* at 5:1–11.

D. Illustrative Claim

Claims 1, 10, and 16 are independent. Claim 1 is reproduced below:

1. A method for copying data from a source file to a target file on a computer system, said method comprising:
 - reading a first data portion from the source file;
 - writing the first data portion to the target file;
 - pausing the copying in response to a user requesting a pause operation from a user interface, wherein the computer system is available for other processing operations following the pausing;
 - reading a second data portion from the source file in response to the user requesting a resume operation; and
 - writing the second data portion to the target file.

E. Instituted Grounds of Unpatentability

We instituted trial based on all asserted claims and grounds of unpatentability as follows (Dec. 37; Paper 11):

References	Basis ⁵	Challenged Claim(s)
Wiese ⁶ and Chowdhury ⁷	35 U.S.C. § 103(a)	1, 2, 6, 8–11, 14–16, 18, and 19
Wiese, Chowdhury, Miller, ⁸ and Day ⁹	35 U.S.C. § 103(a)	3–5, 12, 13, and 17
Wiese, Chowdhury, and Raucci ¹⁰	35 U.S.C. § 103(a)	7
Romrell ¹¹ and Chowdhury	35 U.S.C. § 103(a)	1

Petitioner also relies on the declaration of Dr. Ethan Miller (Ex. 1003, “Miller Declaration” or “Miller Decl.”) in support of its contentions.

II. ANALYSIS

A. Principles of Law

To prevail in its challenge to Patent Owner’s claims, Petitioner must demonstrate by a preponderance of the evidence that the claims are unpatentable. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d). A claim is

⁵ The ’229 patent was filed on June 8, 2000, prior to the date when the Leahy-Smith America Invents Act (“AIA”) took effect.

⁶ US 6,108,707 (filed May 8, 1998, issued Aug. 22, 2000) (Ex 1004, “Wiese”).

⁷ US 6,026,439 (filed Oct. 28, 1997, issued Feb. 15, 2000) (Ex. 1005, “Chowdhury”).

⁸ US 5,553,083 (issued Sept. 3, 1996) (Ex. 1007, “Miller”).

⁹ J. Day, “A Proposed File Access Protocol Specification” (Ex. 1008, “Day”).

¹⁰ R. Raucci, “A Windows NT™ Guide to the Web,” Chapter 2 (Ex. 1009, “Raucci”).

¹¹ US 6,396,805 B2 (filed Dec. 30, 1997, issued May 28, 2002) (Ex. 1006, “Romrell”).

unpatentable under 35 U.S.C. § 103(a) 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 of the invention to a person having ordinary skill in the art. *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) when in evidence, objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

B. Level of Ordinary Skill in the Art

Citing its declarant, Dr. Ethan Miller, Petitioner contends that a person having ordinary skill in the art at the time of the invention would have had “a working knowledge of computer science, a Bachelor’s or Master’s degree in computer science or [a] comparable field, and at least three years of related work experience or training.” Pet. 7; Ex. 1003 ¶ 33. Patent Owner’s declarant, Mr. William C. Easttom II, contends that a person having ordinary skill in the art at the time of the invention would have had “a bachelor’s degree in electrical engineering or computer science (or equivalent degree/experience) with at least two years of experience in computer programming and software development.” Ex. 2001 (“Easttom Declaration” or “Easttom Decl.”) ¶ 13; PO Resp. 23 (citing same).

Petitioner and Patent Owner set forth similar definitions for the level of ordinary skill in the art, the most notable difference being the number of years of related experience. As Patent Owner’s definition defines fewer

years of experience and, therefore, appears to be slightly broader than Petitioner's definition, we adopt Patent Owner's assessment of a person with ordinary skill in the art.

C. Claim Construction

In an *inter partes* review, a claim in an unexpired patent shall be given its broadest reasonable construction in light of the specification of the patent in which it appears.¹² 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016) (upholding the use of the broadest reasonable interpretation standard). Consistent with the broadest reasonable construction, claim terms are presumed to have their ordinary and customary meaning as understood by a person of ordinary skill in the art in the context of the entire patent disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). The presumption may be overcome by providing a definition of the term in the specification with reasonable clarity, deliberateness, and precision. *See In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). In the absence of such a definition, limitations are not to be read from the specification into the claims. *See In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993). Only those terms that are in controversy need be construed, and only to the extent necessary to resolve the controversy. *Vivid*

¹² This Petition was filed before the effective date of the amendment to 37 C.F.R. § 42.100 that changed the claim construction standard applied in *inter partes* reviews. Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 FR 51340 (Oct. 11, 2018) (to be codified at 37 C.F.R. pt. 42). Thus, we use the broadest reasonable interpretation claim construction standard for this proceeding. We would construe the claim terms discussed below the same under *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

Techs., Inc. v. Am. Sci. & Eng'g, Inc., 200 F.3d 795, 803 (Fed. Cir. 1999); see also *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (applying *Vivid Techs.* in the context of an *inter partes* review).

Use of the word *means* in a claim gives rise to a rebuttable presumption that 35 U.S.C. § 112, sixth paragraph (“112(6)”), analysis applies to interpret the claim. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015). Construing a means-plus-function claim term is a two-step process, wherein we first identify the claimed function and then determine what structure, if any, disclosed in the specification corresponds to the claimed function. *Id.* at 1351. Our rules specifically require that a petition for *inter partes* review identify how each challenged claim is to be construed, including identification of the corresponding structure for means-plus-function limitations. See 37 C.F.R. § 42.104(b)(3) (“Where the claim to be construed contains a means-plus-function . . . limitation as permitted under 35 U.S.C. 112[(6)], the construction of the claim must identify the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function.”).¹³ “[S]tructure disclosed in the specification is ‘corresponding’ structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim.” *Med. Instrumentation & Diagnostics Corp. v. Elekta*

¹³ 37 C.F.R. § 42.104(b)(3) refers to § 112(f). Section 4(c) of the AIA re-designated 35 U.S.C. § 112, sixth paragraph as 35 U.S.C. § 112(f). Because the '229 patent has a filing date before the effective date of the AIA, we use the citation § 112, sixth paragraph.

AB, 344 F.3d 1205, 1210 (Fed. Cir. 2003) (quoting *B. Braun Med. Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997)).

For a computer-implemented means-plus-function claim limitation, the corresponding structure for performing a specific function is required to be more than simply a general purpose computer or microprocessor. *In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1316 (Fed. Cir. 2011). In such an instance, the structure corresponding to a 35 U.S.C. § 112(6) claim limitation for a computer-implemented function must include the algorithm needed to transform the general purpose computer or microprocessor disclosed in the Specification into a special purpose computer or microprocessor. *Aristocrat Techs. Australia Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008); *Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1340 (Fed. Cir. 2008); *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999). The algorithm may be expressed in any understandable terms including as a mathematical formula, in prose, as a flow chart, or in any other manner that provides sufficient structure at least to the satisfaction of one of ordinary skill in the art. *Finisar*, 523 F.3d at 1340. For those functions that can be achieved by any general purpose computer without special programming, it is not necessary to disclose more structure than the general purpose processor that performs those functions. *In re Katz*, 639 F.3d at 1316.

Petitioner contends the terms of the claims of the '229 patent should be interpreted to have their plain and ordinary meaning under the broadest reasonable interpretation standard, and proposes an express construction for “computer system is available for other processing operations.” Pet. 8.

Petitioner also contends that the claims contain several means-plus-function limitations. *Id.* at 9–25.

Patent Owner contends that “the Board need not construe any claim term in a particular manner.” PO Resp. 23. Nonetheless, Patent Owner addresses the terms identified by Petitioner. *Id.* at 24.

1. Computer System is Available for other Processing Operations

Independent claims 1, 10, and 16 recite “wherein the computer system is available for other processing operations following the pausing.” According to Petitioner, “computer system is available for other processing operations” should be interpreted to mean “at least a substantial portion of one or more resources of the computer system, such as a processor, memory, or network resources, that are being used by the copy operation are freed from the copy operation to be used to carry out a task other than the copy operation.” Pet. 8 (citing Ex. 1003 ¶¶ 38–39). Petitioner contends that this interpretation “is consistent with the specification of the ’229 Patent and the ordinary use of the term.” *Id.*

Patent Owner disagrees, arguing that, “[t]aken literally, Petitioner’s construction would appear to be satisfied if the computer system actually continued the copying process using certain resources, instead of pausing, provided that the computer system simply freed up at least a substantial portion (though not necessary all) of at least one resource.” PO Resp. 24.

The ’229 patent recognizes that copying complex files, such as files including “graphics, audio data, large executables, and multimedia files,” “requires substantial computer resources . . . includ[ing] hard disk space, memory, processors, and network resources.” Ex. 1001, 1:24–30. When copying such complex files, “few resources remain for other computer

operations,” causing them to “become extremely slow or stall because they are not receiving the resources necessary for proper execution.” *Id.* at 1:30–35; *see also id.* at 1:55–64.

To solve these problems, the ’229 patent provides for pausing the copying function. The “[p]ause request **260** suspends the reading of source file **220** and subsequent writing to destination file **230**. By pausing the copy operation, the user frees resources, such as processing capacity and nonvolatile storage access, for use by other processes that the user wishes to execute.” *Id.* at 4:35–40.

Petitioner’s interpretation of “computer system is available for other processing operations” is consistent with the description in the ’229 patent. We are not persuaded by Patent Owner’s argument that Petitioner’s interpretation allows for the copying process to continue, as the claims elsewhere require pausing the copying to make the computer system available for the other processing operations, and Petitioner’s interpretation explicitly requires the computer resources “are freed from the copy operation to be used to carry out a task *other than the copy operation*.” *See, e.g., id.* at 9:49–52; *see also* Pet. 8 (emphasis added).

For purposes of this Decision, and based on the record before us, we adopt Petitioner’s interpretation as our own.

2. Means-Plus-Function Terms

For the “means for transmitting” limitation found in dependent claims 11 and 18, Petitioner argues the term should be construed to require “the structure of a computer network.” Pet. 21. Petitioner argues that each of the other means-plus-function limitations should be construed to require a general purpose computer programmed to perform each recited function.

See, e.g., id. at 14–15. Patent Owner does not offer a proposed construction of the means-plus-function limitations. *See* PO Resp. 24. We disagree with Petitioner’s proffered construction for the “means for transmitting” term because it is overly broad and because a network is not part of the computer system that includes the recited means for transmitting. Rather, a network interface card (“NIC”) transmits data from one system to another. The ’229 patent explains that its NIC can be provided in the form of a LAN card or a modem card. Ex. 1001, 8:48–54, Fig. 8. For purposes of this Decision, and based on the record before us, we construe “means for transmitting” to require the corresponding structure of a NIC.

As noted above, for those computer-implemented functions that can be achieved by any general purpose computer without special programming, it is not necessary to disclose more structure than the general purpose processor that performs those functions. *In re Katz*, 639 F.3d at 1316. Thus, for purposes of this Decision, and based on the record before us, we construe the structure of the following means-plus-function claim terms to be a general purpose processor: “means for reading” (claims 10, 13, 14, and 16) and “means for writing” (claims 10, 12, 14, 16, and 17).

For each of the remaining means-plus-function claim terms—“means for pausing” (claims 10, 12, 16, and 17), “means for resuming” (claims 10 and 13), and “means for selecting” (claims 14 and 19)—for purposes of this Decision, and based on the record before us, we agree with and adopt Petitioner’s interpretation as our own. *See* Pet. 15–19, 24. We note that Petitioner states that the recited “means for pausing” “should be construed to require the structure of the information handling system of Figure 8 or a similar general purpose computer system, programmed to perform the steps

described above (referring to Figure 6) and equivalents thereof.” *Id.* at 17. We further note that Petitioner’s constructions for “means for resuming” and “means for selecting” overlap with the construction of “means for pausing” in that they all require the structure of the information handling system of Figure 8 or a similar general purpose computer system, programmed to perform the recited functions. *Id.* at 18–19, 24.

D. Real Parties-in-Interest

The statute governing *inter partes* review proceedings sets forth certain requirements for a petition for *inter partes* review, including that “the petition identif[y] all real parties in interest.” 35 U.S.C. § 312(a)(2); *see also* 37 C.F.R. § 42.8(b)(1) (requiring identification of real parties-in-interest in mandatory notices). The petitioner bears the burden of persuasion to show that it accurately names all real parties-in-interest (“RPIs”). *Applications in Internet Time, LLC v. RPX Corp.*, 897 F.3d 1336, 1343 (Fed. Cir. 2018) (“*AIT*”) (citing *Zerto, Inc. v. EMC Corp.*, Case IPR2014-01295, slip op. at 6–7 (PTAB Mar. 3, 2015) (Paper 34)). We generally accept a petitioner’s initial identification of its RPIs unless the patent owner presents some evidence to support its argument that an unnamed party should be included as an RPI. *Worlds Inc. v. Bungie, Inc.*, 903 F.3d 1237, 1242 (Fed. Cir. 2018) (explaining that “an IPR petitioner’s initial identification of the real parties in interest should be accepted unless and until disputed by a patent owner,” and that “a patent owner must produce some evidence to support its argument that a particular third party should be named a real party in interest”).

In accordance with 35 U.S.C. § 312(a)(2) and 37 C.F.R. § 42.8(b)(1), Petitioner identifies Unified Patents, Inc. as the sole real party-in-interest and “certifies that no other party exercised or could exercise direction, funding, or control over its participation in this proceeding, the filing of this petition, or the conduct of any ensuing trial.” Pet. 1.

Patent Owner argues the Petition should be denied because Petitioner “failed to establish that it is the real party in interest and failed to name all privies and real parties in interest when [Petitioner] filed its petition.” PO Resp. 1. According to Patent Owner, “[p]arties filing a petition for *inter partes* review must identify *all* the privies and real parties in interest.” *Id.* (citing 35 U.S.C. § 312(a)(2); 37 C.F.R. § 42.8(b)(1)). Patent Owner contends that Petitioner did not satisfy these requirements because “Square Enix should have been named as a real party in interest” and Petitioner “acted as a proxy (i.e., a form of privity) for Square Enix in filing the instant Petition.” *Id.*

In particular, Patent Owner likens Petitioner to the petitioner in the *AIT* case, noting that Petitioner advertises “complete alignment” between itself and its member companies. *Id.* at 6–9. Patent Owner also asserts that Square Enix has a beneficial relationship with Petitioner, noting that the instant Petition was filed approximately six months after Square Enix entered into a membership agreement with Petitioner and that the ’229 patent has been asserted against Square Enix in district court litigation. *Id.* at 9–11. Patent Owner argues that Square Enix must have desired review of the ’229 patent because Petitioner identified the patent as being directed to the ██████████ to which Square Enix subscribed. *Id.* at 11–13. Relying heavily on the concurring opinion in *AIT*, Patent Owner argues that

Petitioner acted as a proxy for Square Enix in seeking the instant IPR and has a history of acting as a proxy in challenging patents asserted by Patent Owner in litigation. *Id.* at 14–21.

As an initial matter, we address Patent Owner’s assertion that “[p]arties filing a petition for *inter partes* review must identify *all* the privies and real parties in interest.” *Id.* at 1 (citing 35 U.S.C. § 312(a)(2); 37 C.F.R. § 42.8(b)(1)). Patent Owner misstates the requirements set forth in the cited authorities, each of which requires a petition to identify all real parties-in-interest but neither of which requires the identification of any privy. Patent Owner’s assertion appears to conflate 35 U.S.C. § 312(a)(2) with 35 U.S.C. § 315(b) (which does mention “privy of the petitioner”) by applying § 312(a)(2) as part of the timeliness inquiry under § 315(b). These statutory provisions “entail distinct, independent inquiries.” *AIT*, 897 F.3d at 1364 (Reyna, J., concurring). As the U.S. Court of Appeals for the Federal Circuit (our reviewing court) has noted, it “is incorrect” to “conflate[] ‘real party in interest’ as used in § 312(a)(2) and § 315(b), and claim[] that ‘§ 312(a)(2) is part and parcel of the timeliness inquiry under § 315.’” *Wi-Fi One, LLC v. Broadcom Corp.*, 878 F.3d 1364, 1374 n.9 (Fed. Cir. 2018) (en banc). “For example, if a petition fails to identify all real parties in interest under § 312(a)(2), the Director can, and does, allow the petitioner to add a real party in interest.” *Id.* “In contrast, if a petition is not filed within a year after a real party in interest, or privy of the petitioner is served with a complaint, it is time-barred by § 315(b), and the petition cannot be rectified and in no event can IPR be instituted.” *Id.* Thus, to the extent Patent Owner asserts the Petition should be denied because it does not identify any privy of

Petitioner, such arguments are unpersuasive because Petitioner is not required to identify its privies.

Turning to Patent Owner’s arguments regarding real parties-in-interest, whether a particular entity is a real party-in-interest is a “highly fact-dependent question” that is assessed “on a case-by-case basis.” Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,759 (Aug. 14, 2012) (“TPG”) (citing *Taylor v. Sturgell*, 553 U.S. 880, 893–95 (2008)).

According to the Trial Practice Guide,

the spirit of that formulation as to IPR . . . proceedings means that, at a general level, the “real party-in-interest” is the party that desires review of the patent. Thus, the “real party-in-interest” may be the petitioner itself, and/or it may be the real party or parties at whose behest the petition has been filed.

Id. Although multiple factors may be relevant to the inquiry, “[a] common consideration is whether [a] non-party exercised or could have exercised control over a party’s participation in a proceeding.” *Id.*; *see also Zoll Lifecor Corp. v. Philips Elec. North Am. Corp.*, Case IPR2013–00609, slip op. at 10 (PTAB Mar. 20, 2014) (Paper 15).

As our reviewing court in *AIT* recently held, the Board should consider an “expansive formulation” of the RPI test and should focus on:

determining whether the non-party is a clear beneficiary that has a preexisting, established relationship with the petitioner. Indeed, . . . the two questions lying at its heart are whether a non-party “desires review of the patent” and whether a petition has been filed at a nonparty’s “behest.” Trial Practice Guide, 77 Fed. Reg. at 48,759.

AIT, 897 F.3d at 1351. In assessing a petitioner’s alleged failure to identify an RPI, “[t]he point is . . . to probe the extent to which [the non-party] has an interest in and will benefit from [the petitioner’s] actions, and inquire

whether [the petitioner] can be said to be representing that interest after examining its relationship with [the non-party].” *Id.* at 1353; *see also id.* at 1347–48 (listing various ways parties can be a real party-in-interest).

As explained below, reviewing the arguments and evidence before us, we determine that Petitioner has satisfied its burden of persuasion to establish that it accurately named itself as the sole RPI. Although Patent Owner would have us weigh the facts differently and determine that Petitioner failed to identify all RPIS, on the record before us, we find that the Petition does not appear to have been controlled or funded by Square Enix, and the Petition does not appear to have been filed at the behest of Square Enix.

For context, we first review the nature of Petitioner, Unified Patents, Inc. Petitioner represents itself as a corporation that specializes in deterring non-practicing entity (“NPE”) patent litigation. Ex. 1017 ¶ 3. According to the Declaration of Kevin Jakel, Petitioner’s Chief Executive Officer and Co-Founder, Petitioner categorizes different technologies into specific “technology zones,” and companies can become “members” of Unified Patents by contractually subscribing to one or more technology zones. *Id.* ¶¶ 5, 6; *see also* Ex. 2008, 4–6 ([REDACTED]). The Jakel Declaration states that Petitioner identified the ’229 patent as relevant to its [REDACTED] zones. Ex. 1017 ¶¶ 6, 12.

The record shows that Petitioner’s members pay [REDACTED] membership fees according to a schedule that [REDACTED]

2017), Square Enix appears to have been a member of Unified Patents. *See* Ex. 2008, 1.

The record contains no evidence of communications between Petitioner and Square Enix regarding this proceeding or the preparation of the Petition filed in this proceeding. *Cf. AIT*, 897 F.3d at 1355 (discussing the communications between the unnamed party and the petitioner prior to the filing of a petition for *inter partes* review).¹⁴ Thus, there is no evidence that the Petition was filed at the behest of Square Enix. *See* <http://www.merriam-webster.com/dictionary/behest> (last visited January 29, 2019) (defining “behest” as “an authoritative order” or “an urgent prompting”). The record also contains no evidence that Square Enix specifically funded this proceeding. To the contrary, as noted above, the declaration testimony of Petitioner’s CEO states that Petitioner has had no contact with Square Enix specific to this proceeding, the filing of this proceeding, or the funding of this proceeding.

Further, Petitioner is not solely an *inter partes* review-filing entity; it provides several services, including monitoring (*see, e.g.*, Ex. 2009, 10), patent licensing (*see, e.g., id.* at 5, 10, 12–13), and various analytics (*see,*

¹⁴ We recognize that the court in *AIT* did not find that the unnamed party was an RPI; the court remanded to the Board to re-review the evidence of record in light of the proper legal analysis. *AIT*, 897 F.3d at 1358 (vacating the Board’s decision and remanding to “consider[] the full range of relationships under § 315(b) and the common law that could make [the unnamed party] a real party in interest with respect to this IPR”). The issue of whether the unnamed party in *AIT* is an RPI has not been resolved. Thus, any contrast we draw here with *AIT* is merely to show the likeness or unlikeness to the facts analyzed in that decision; we do not use the unnamed party in *AIT* as a yardstick to measure who is an RPI.

e.g., id. at 6–7). Although *inter partes* review filing represents [REDACTED] [REDACTED] (nearly all, *id.* at 10–11), that does not mean that *inter partes* review filings constitute nearly all of its business or provide a significant amount of the firm’s value to its customers. Unlike in *AIT*, we do not have evidence as to Square Enix’s motivations for paying their membership fees. *Cf. AIT*, 897 F.3d at 1341–42 (noting that the non-party discussed the litigation with the petitioner after the non-party lost a covered business method challenge, followed by a payment from the non-party to the petitioner shortly thereafter).

Patent Owner argues that the filing of the instant petition approximately six months after Square Enix entered into a membership agreement with Petitioner “irrefutably confirm[s] that Square Enix has ‘a preexisting, established relationship with the petitioner’ that predates and continued through the filing of the instant Petition.” PO Resp. 10. Patent Owner argues that Square Enix is Petitioner’s only client that stands to benefit from the instant IPR because Square Enix is the only one of Petitioner’s clients against whom the ’229 patent has been asserted. *Id.* at 10–11. Patent Owner argues that “[t]he record evidence further reveals that Square Enix must have at least ‘desire[d] review of the [’229] patent,’” noting that the membership agreement listed [REDACTED] [REDACTED] and characterizing the listing of the ’229 patent in the annual report prepared for Square Enix as being directed to the [REDACTED] that Square Enix joined as a “party admission” that the filing of the instant IPR was a benefit to Square Enix. *Id.* at 11–13 (alterations in original).

Absent specific evidence linking the actions of Petitioner and Square Enix, the facts of record do not implicate, in our view, any particular coordination between Petitioner and Square Enix. Patent Owner’s contentions, by and large, are conjecture unsupported by the evidence of record; Patent Owner cites no evidence of communication or cooperation between Petitioner and Square Enix in Petitioner’s decision to file or prepare this Petition. *Cf. RPX Corp. v. Virnetx Inc.*, IPR2014-00171 (PTAB 2014), Paper 57, 9 (holding that, “based on the record presented, the interactions between [the petitioner and the unnamed party] show an implicit authorization to challenge the . . . Patents.”) (non-precedential). That Patent Owner has sued Square Enix, asserting infringement of the ’229 patent, does not, by itself, persuade us that Square Enix is a real party-in-interest to the instant IPR. All entities have an interest in eliminating or mitigating the risks of a lawsuit pending against them; that does not make all defendants accused of infringing a patent later challenged in a petition for *inter partes* review a real party-in-interest to the petitioner. The “interest” or “benefit” discussed in *AIT* is not so broad as to mean any interest whatsoever. *See Unified Patents, Inc. v. Realtime Adaptive Streaming, LLC*, Case IPR2018-00883, slip op. at 14–15 (PTAB 2018) (Paper 36) (“The RPI analysis set out in *AIT* and the common law require more than simply confining the analysis to determining whether a party benefits generally from the filing of this Petition and also has a relationship with the Petitioner.”). Rather, the question is whether Petitioner is *specifically representing* the unnamed party’s interest—“whether [the petitioner] can be said to be *representing that interest* after examining its relationship with [non-party].” *AIT*, 897 F.3d at 1353 (emphasis added). Although Square Enix may ultimately

benefit from this Petition (depending on its outcome), we do not have evidence that Petitioner is representing any particular interest of Square Enix here. Rather, the evidence shows Petitioner is representing the general interest that all subscribers to Petitioner's [REDACTED] [REDACTED] have in mitigating litigation risk from patents in those zones.

There is one significant fact here, not addressed by Patent Owner, suggesting strongly that Square Enix did *not* expect or request Petitioner to challenge the '229 patent in an *inter partes* review proceeding. Unlike the alleged unnamed RPI in *AIT*, Square Enix was not barred under 35 U.S.C. § 315(b) from filing its own petition. Indeed, as Square Enix was sued by Patent Owner on April 12, 2017, Square Enix had several months after the Petition was filed during which it could have initiated its own petition challenging the '229 patent before the Board. Thus, Square Enix did not need Petitioner to file this Petition on its behalf, and may have preferred to file its own petition to give it control over the arguments made to challenge the '229 patent, thereby ensuring their consistency with whatever invalidity or non-infringement arguments Square Enix intends to present as a defense in the pending litigation.

Patent Owner dedicates several pages of its Response arguing that Unified Patents acted as a proxy for Square Enix because Unified Patents and Square Enix are privies. PO Resp. 14–21. However, as noted above, there is no requirement for a Petitioner to identify its privies when filing a petition. *See* 35 U.S.C. § 312(a)(2); 37 C.F.R. § 42.8(b)(1). Moreover, because Square Enix was not time-barred at the time the Petition was filed

(*see* 35 U.S.C. § 315(b)), whether Square Enix is a privy of Petitioner is even less material here.

Accordingly, for the foregoing reasons, we determine that the evidence and arguments advanced by Patent Owner do not establish that Petitioner filed this Petition at the behest of Square Enix—on balance, the evidence and arguments advanced by Petitioner lead us to determine that Square Enix is not an unnamed real party-in-interest to this Proceeding. Weighing the evidence, we determine that Square Enix did not have control of, provide funding or direction to, or receive a specific benefit (e.g., to purposefully circumvent a § 315(b) bar) from the filing of this Petition, and we determine that Petitioner carried its burden to establish that it properly identified itself as the sole real party-in-interest.

E. Overview of the Prior Art

1. Wiese

Wiese discloses a method for efficiently transferring files from a source location to a destination location within a general computer system and/or computer network. Ex. 1004, 1:8–11. Wiese recognizes that, “[t]raditionally, file transfer operations are given a high priority by the computer system, such that once a file transfer operation has been initiated, the user is prevented from interacting with the computer system until the file transfer operation is complete.” *Id.* at 1:28–32. This means, however, that the computer system’s central processing unit (“CPU”) is unavailable to handle concurrent user-initiated operations. *Id.* at 1:32–35. Wiese also recognizes other disadvantages with traditional file transfer operations, including the excessively long period of time required to complete transfer

of individual files one file at a time, the different access speeds of the source and destination media, and the increased amount of overhead (headers) that must be transferred along with the file information. *Id.* at 1:39–67.

Wiese sought to improve on prior systems by transferring files using distinct read and write processes (*id.* at 3:48–51), transferring file information as a continuous stream of data blocks (*id.* at 4:49–52), and transferring files using a cooperative task execution strategy (*id.* at 6:11–16). According to the cooperative task execution strategy, “the file transfer operation ‘cooperates’ with other tasks, particularly user initiated tasks, by yielding the computer system’s resources, such as the CPU 105, to execute a task initiated during the file transfer operation.” *Id.* (boldface omitted). The system checks after each read or write step in the file transfer operation to determine if a user has initiated a task during the file transfer process. *Id.* at 6:29–39. This may be done by causing the interrupt handler of an input device to set a special status flag when user interaction occurs, and checking the status of the flag after each read or write step. *Id.* at 6:42–51. Once the user-initiated task is complete, the CPU is turned back over to the file transfer operation. *Id.* at 6:59–61. Wiese identifies the benefits of the cooperative task execution strategy as follows:

The primary advantage [of the cooperative task execution strategy] is that it provides an equitable trade-off between system performance (i.e., the computer system’s ability to efficiently accomplish a file transfer operation) and system response (i.e., the computer system’s ability to allow the user to interact with the system during a file transfer operation). More specifically, this aspect of the invention optimizes the computer system’s ability to respond to user initiated tasks in a timely manner without compromising file transfer operation performance.

Id. at 7:30–39.

2. Chowdhury

Chowdhury discloses a method for transferring data. Ex. 1005, 1:10–12. Chowdhury recognizes that “[i]n video applications for example, where files are transferred from memory to a video decoder for presentation on a display device, there is generally no opportunity for a user to modify the files being transferred or otherwise control or manage the presentation of such files on a display device.” *Id.* at 1:26–31. For example, system efficiency and speed could be greatly increased by allowing the user to pause or terminate the transfer of video or audio files, which may contain an enormous amount of information and take considerable time to transfer, before the transfer has totally completed. *Id.* at 1:32–50.

The Chowdhury system transfers video files from a memory location to a video file decoder, which sends the video files to a display device for presentation to a user. *Id.* at 3:41–46. A playlist containing a sequence of video files to be transferred, in a predetermined order, is created. *Id.* at 3:54–59. The playlist files are transferred from the memory to the decoder via a channel. *Id.* at 5:15–22. The transfer of video files is initiated by calling a PLAY function. *Id.* at 5:47–48. Transfer may be interrupted by calling a PAUSE function, which stops the transfer at an identified video file entry. *Id.* at 5:57–6:1. Transfer may be resumed by calling the PLAY function. *Id.* at 6:1–3. The PAUSE function may include setting a pause flag value to one to indicate that the file transfer needs to pause. *Id.* at 10:24–28. The pause flag is reset to zero when resuming play after a pause. *Id.* at 10:29–30.

3. *Miller*

Miller discloses a method of transmitting files from a server to one or more clients. Ex. 1007, 1:7–9. The server continuously sends information, broken into blocks of frames, to each of the clients. *Id.* at 2:46–48, 3:23–26, 3:66–4:7, 6:52–54, 7:1–3. After each block is sent, and while the subsequent block is being sent, each of the clients sends an acknowledgment to the server indicating whether any frame was received incorrectly and, therefore, needs to be resent. *Id.* at 2:50–55, 3:28–31, 4:7–12. After the server has sent the entire file, the server performs subsequent rounds of data transmission to resend data that was incorrectly received, on a block by block basis, as indicated by the acknowledgements sent by the clients. *Id.* at 2:56–67, 4:12–21, 7:21–27.

4. *Day*

Day is a proposal for a File Access Protocol (“FAP”), the purpose of which is to provide a method for processes to access non-local files in either a sequential or non-sequential manner. Ex. 1008, 1, 2. The protocol allows processes to specify to the remote file system where in the file they wish the next operation to start and how much data to move. *Id.* at 2. FAP uses a file pointer, which points into the file to be accessed, and is the point at which the next FAP read or write will commence. *Id.* at 2–3. The file pointer is a general mechanism for addressing a file, and represents an index or address within the file. *Id.* at 3–4.

5. *Romrell*

Romrell discloses a computer network device that is configured to automatically recover from a communications disruption during

transmission of a data stream from a source computer to a destination computer. Ex. 1006, 1:13–16, 52–54. The recovery includes determining a portion of the data stream that was successfully received by the destination computer, and resuming transmission from a point in the data stream immediately after the successfully received portion. *Id.* at 1:55–59. The source computer (network device) is configured to determine whether a received request to transmit a data stream corresponds to a previously disrupted transmission. *Id.* at 7:47–54. If so, the network device determines what portion of the requested data stream, if any, was successfully received by the destination device before the disruption. *Id.* at 7:54–57. The network device may then set a transmission start point to a position corresponding to an offset into the requested data stream equal to the successfully received portion. *Id.* at 7:57–60. The start point may be determined by the destination computer issuing an “enhanced request” for the data object that was being transferred when the disruption occurred. *Id.* at 8:8–12. The enhanced request includes an indication of the number of bytes of the data object already received by the destination computer. *Id.* at 8:12–16.

The system may also allow the user to pause a download at any time, not just because of a communications failure. *Id.* at 8:22–26. If the user selects a so-called “deferred continuation” option during a particular download, the destination computer checkpoints the connection by storing the partially-downloaded data object. *Id.* at 26–30. This allows the user to, for example, browse elsewhere or disconnect until a later time. *Id.* at 8:30–32. When the user chooses to resume the download, the local proxy of the destination computer issues an enhanced request to a remote proxy, causing

the remote proxy to resume the download from an offset equal to the number of bytes previously stored by the local proxy. *Id.* at 8:38–41.

6. Raucci

Raucci describes Netscape Navigator 3.0, an internet browser software application. Ex. 1009, 9. Raucci describes the main window of the browser as having a progress bar one can use to track Web document transfers. *Id.* at 10.

F. Challenge Based on Wiese and Chowdhury

Petitioner asserts that the combination of Wiese and Chowdhury describes all elements of claims 1, 2, 6, 8–11, 14–16, 18, and 19, and that it would have been obvious to combine Wiese and Chowdhury. Pet. 4, 29–49.

1. Availability of Chowdhury as Prior Art

Patent Owner contends that Chowdhury is disqualified as prior art under 35 U.S.C. § 103(c)(1). PO Resp. 25–29. Section 103(c)(1) provides:

Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the claimed invention was made, owned by the same person or subject to an obligation of assignment to the same person.

35 U.S.C. § 103(c)(1). Patent Owner notes that Petitioner identified Chowdhury as prior art under 35 U.S.C. § 102(e). PO Resp. 27; *see also* Pet. 3. Patent Owner faults the burden of production analysis in our Institution Decision (*see* Dec. 17–19), arguing that “because the Petition itself does not expressly purport to rely on the proposition that [Chowdhury]

also qualifies as prior art [under] 35 U.S.C. § 102(a), the burden of production could not have shifted to Uniloc to counter such an unstated (and hence waived) proposition.” PO Resp. 27. Patent Owner emphasizes that it “did not seek to rebut the sole articulated theory that Chowdhury is a § 102(e) reference”; rather, it “simply explained why, when accepting for argument sake the only prior art proposition *expressly relied on* in the Petition, Chowdhury cannot preclude patentability under the statutory preclusion of pre-AIA § 103(c)(1).” *Id.* Thus, according to Patent Owner, “the specific burden shifting applied in *Dynamic Drinkware* is not applicable here.” *Id.* at 28.

We are not persuaded by Patent Owner’s arguments. Irrespective of who has the burden of production, as set forth in our Institution Decision, the evidence of record indicates that Chowdhury *is* prior art under section 102(a), rendering section 103(c)(1) inapplicable. *See* Dec. 19–20. The evidence of record further indicates that Chowdhury *is* prior art under section 102(e), and can therefore be used as evidence of obviousness under section 103(a), as Petitioner contends. *See* Pet. 3–4. To be clear, by noting that Chowdhury is section 102(a) prior art, we are not, as asserted by Patent Owner (*see* PO Resp. 27–28), changing any ground of unpatentability set forth in the Petition, nor are we adopting arguments on behalf of Petitioner. Rather, we highlight that the evidence of record contradicts Patent Owner’s assertion that Chowdhury is not available as prior art under section 103(a) as set forth by Petitioner.

Accordingly, based on the record before us, we determine that Chowdhury is not precluded prior art under section 103(c)(1).

2. Claim 1

a. Petitioner's Contentions

Petitioner relies on Wiese to disclose most of the limitations of claim 1, including pausing a copy operation, but relies on Chowdhury to teach pausing the copying in response to a user requesting a pause operation from a user interface. Pet. 33–38.

Claim 1 recites “[a] method for copying data from a source file to a target file on a computer system.” Ex. 1001, 9:45–46. Petitioner contends that “*Wiese* discloses ‘the ability to transfer (i.e., copy and/or move) files from a source location to a destination location within the computer system.’” Pet. 33 (citing Ex. 1004, Abstract, 1:8–11). We are persuaded by Petitioner’s showing and agree that Wiese describes “[a] method for copying data from a source file to a target file on a computer system.”

Claim 1 recites “reading a first data portion from the source file” and “writing the first data portion to the target file.” Ex. 1001, 9:47–48. Petitioner contends that Wiese describes a file transfer operation involving independent read and write processes that read portions of data from a source file and write the portions of data to a destination file. Pet. 33 (citing Ex. 1003 ¶¶ 42–43; Ex. 1004, 3:49–51, 3:64–4:9, Fig. 2). We are persuaded by Petitioner’s showing and agree that Wiese describes “reading a first data portion from the source file” and “writing the first data portion to the target file.”

Claim 1 recites “pausing the copying in response to a user requesting a pause operation from a user interface, wherein the computer system is available for other processing operations following the pausing,” “reading a second data portion from the source file in response to the user requesting a

resume operation,” and “writing the second data portion to the target file.” Ex. 1001, 9:49–55. Petitioner notes that Wiese discloses that if it is determined that a user task has been initiated during a file transfer process, the transfer process is suspended and CPU 105 is yielded to process the user-initiated task. Pet. 34 (citing Ex. 1004, 2:40–42, 6:39–41). Petitioner notes that Wiese discloses such user-initiated tasks include opening a window, moving a window, entering data through the keyboard, and expanding a pull-down menu, and argues that a person of ordinary skill in the art would have understood such tasks to be user-initiated tasks. *Id.* (citing Ex. 1004, 6:37–39; Ex. 1003 ¶ 44). Thus, Petitioner reasons, Wiese “discloses the claimed ‘pausing the copying in response to’ a user initiated task.” *Id.*

Petitioner notes that Chowdhury indicates a desire to increase system efficiency and system speed by providing a user with the option to pause or terminate a video file transfer before the transfer has totally completed, and discloses that a PAUSE call or function may be invoked to pause the transfer of a video file. *Id.* (citing Ex. 1005, 1:47–50, 5:57–60). Relying on its declarant, Petitioner states that Chowdhury’s PAUSE function is an application programming interface (API) function responsive to user input through a user interface. *Id.* at 34–35 (citing Ex. 1003 ¶¶ 48–50). Thus, Petitioner reasons, Chowdhury “discloses the claimed ‘pausing the copying in response to a user requesting a pause operation from a user interface.’” *Id.* at 35.

Petitioner notes that Wiese discloses that, when the task initiated by the user is complete, the file transfer operation resumes. *Id.* at 36 (citing Ex. 1004, 6:63–65). Thus, Petitioner reasons, Wiese “discloses the claimed ‘reading a second data portion from the source file in response to ... a

resume operation’ and ‘writing the second data portion to the target file.’”
Id. at 37.

Petitioner notes that Chowdhury discloses that the PLAY function is called to resume the transfer process after a pause. *Id.* (citing Ex. 1005, 6:1–3). Relying on its declarant, Petitioner states that Chowdhury’s PLAY function is an API function responsive to user input through a user interface. *Id.* (citing Ex. 1003 ¶¶ 48–50). Thus, Petitioner reasons, Chowdhury “discloses the claimed ‘reading a second data portion from the source file in response to the user requesting a resume operation.’” *Id.* (emphasis omitted).

Petitioner reasons that it would have been obvious to a person of ordinary skill in the art “to integrate *Chowdhury’s* teaching that a user can directly pause a file transfer with *Wiese’s* approach to suspending a file transfer, allowing a user to free computer resources for reasons not associated with a user initiated action.” *Id.* at 35 (citing Ex. 1003 ¶¶ 59, 65). Petitioner explains that such integration could be accomplished via *Wiese’s* buffer or status flags. *Id.* at 30–31. According to Petitioner, the ordinarily skilled artisan would have been motivated to combine *Wiese* and *Chowdhury* because, *inter alia*, “adding *Chowdhury’s* PAUSE and PLAY functions to *Wiese’s* file transfer would make *Wiese’s* file transfer more responsive to user input and provide the user with greater control.” *Id.* at 35 (citing Ex. 1003 ¶¶ 63–65). Petitioner states that “[s]uch a pause button would be easy to use and intuitive.” *Id.* (citing Ex. 1003 ¶ 64).

Notwithstanding Patent Owner’s arguments, which we discuss below, we are persuaded by Petitioner’s showing and agree that *Wiese* and *Chowdhury* describe “pausing the copying in response to a user requesting a

pause operation from a user interface, wherein the computer system is available for other processing operations following the pausing,” “reading a second data portion from the source file in response to the user requesting a resume operation,” and “writing the second data portion to the target file.”

b. Patent Owner’s Contentions

Patent Owner presents several arguments challenging the combination of Wiese and Chowdhury. PO Resp. 31–44. First, Patent Owner interprets claim 1 to “require that execution of the ‘pausing’ and ‘reading’ steps must be ‘in response to’ respective ones of two distinct and specific requests: (1) a user requesting a pause operation; and (2) a user requesting a resume operation.” *Id.* at 31. Patent Owner argues that “there would not have been sufficient motivation to modify Wiese to wait for and rely upon a *user* to select the ‘PLAY’ feature of the Chowdhury user interface” because “the Wiese system is specifically designed to *automatically* resume its file transfer operation upon completion of an interrupting task.” *Id.* (citing Ex. 2001 ¶¶ 10–12, 17–22). Patent Owner argues that “[t]his automated feature reflects the thematic purpose expressed throughout Wiese” and, thus,

[t]here can be no suggestion or motivation to make the proposed modification where, as here, it would render the reference being modified unsatisfactory for its intended purpose or where a person of ordinary skill, upon reading the reference, “would be led in a direction divergent from the path that was taken by the applicant.”

Id. at 31–32 (quoting *Polaris Indus., Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1069 (Fed. Cir. 2018)) (footnote omitted). Continuing, Patent Owner argues that Petitioner’s “proposed modification vitiates the intended purpose in Wiese of minimizing file transfer time while fully utilizing shared computer

system resources through use of a ‘cooperative’ task execution strategy.” *Id.* at 34 (citing *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984); *In re ICON Health & Fitness, Inc.*, 496 F.3d 1374, 1382 (Fed. Cir. 2007); *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994); *Plas–Pak Indus., Inc. v. Sulzer Mixpac AG*, 600 F. App’x 755, 759 (Fed. Cir. 2015)). Patent Owner also argues that “the modified system would still automatically turn the CPU back over to the file transfer operation once the interrupting task is complete, irrespective of whether the user had selected the allegedly-combinable ‘PLAY’ feature of the Chowdhury user interface,” and that “[g]ranted a user control to resume the file transfer operation *even before* the interrupting task is complete . . . would violate [Wiese’s] execution strategy and further render Wiese inoperable for its intended purpose.” *Id.* at 34–35.

Patent Owner’s arguments are not persuasive. As noted in the Decision, Petitioner proposes to *add* Chowdhury’s PAUSE and PLAY functionality to Wiese; the automated control would still be present, but the user would also be provided with means to manually pause and resume file transfer. *See* Dec. 26–27; Pet. 31–32. Thus, to the extent that Wiese’s system is specifically designed for automatic control of the copy resumption, such automatic resumption is still present in the modified system proposed by Petitioner, and would function as disclosed in Wiese. Petitioner’s modification provides the additional feature, taught by Chowdhury, of user-initiated manual pausing and resuming of Wiese’s file transfer functionality. Patent Owner has not persuasively explained how Wiese’s stated efficiencies of having separate read and write functions (*see* Ex. 1004, 4:10–34) and continuous streaming during file transfer (*see id.* at 5:13–22) would be affected by the addition of Chowdhury’s functions to Wiese, and, thus,

Patent Owner has not persuasively established that the combination would render Wiese unsatisfactory for its intended purpose. For similar reasons, Patent Owner has not persuasively established that Wiese teaches away from its combination with Chowdhury. *See also* Dec. 27 (discussing the requirements for a “teaching away” argument).

Nor does Patent Owner adequately explain how the modified system would resume copying automatically, even when the pause is initiated manually. *See* PO Resp. 34–35. The modification proposed by Petitioner adds the manual pausing and resuming operations of Chowdhury. *See* Pet. 31–32, 37–38. As noted by Petitioner, Chowdhury discloses that its PLAY function is used to resume operation after a user-initiated pause. *See* Ex. 1005, 6:1–3; Pet. 37. Petitioner’s declarant testifies that a person having ordinary skill in the art would know how to implement Chowdhury’s PAUSE and PLAY functionality into Wiese’s buffer or status flag such that transfer would be resumed by a manual resume operation (i.e., Chowdhury’s PLAY functionality) following a manually-initiated pause (i.e., Chowdhury’s PAUSE functionality). Ex. 1003 ¶¶ 60–66. Petitioner’s declarant explains that the modification provides “an additional way in which the user can directly pause or resume file transfer operations rather than simply relying on the system to automatically pause or resume the file transfer operations.” Ex. 1018 ¶ 5. Patent Owner’s conclusory statements alleging automatic resumption following a manually-initiated pause are mere attorney argument unsupported by Patent Owner’s declarant, and, thus, fail to apprise us of error in the arguments advanced by Petitioner and Petitioner’s declarant.

Patent Owner next interprets claim 1 to require the “reading a second data portion” recitation as “one that must be responsive to the user-requested resume operation.” PO Resp. 35–36. Patent Owner argues that the Petition fails to prove how the combination of Wiese and Chowdhury satisfies this requirement. *Id.* Continuing, Patent Owner argues that, after pausing, Wiese’s system may resume by *writing* from the buffer as opposed to *reading* from the buffer. *Id.* at 36–37. According to Patent Owner, “[i]f the file transfer process had just completed reading the last of the relevant data when it is interrupted, then resuming the file transfer operation would result only in executing the last write process 220 remaining to complete that transfer.” *Id.* at 37.

Patent Owner’s arguments are not persuasive. The recitation at issue reads as follows: “reading a second data portion from the source file in response to the user requesting a resume operation.” Ex. 1001, 9:54–55. Contrary to Patent Owner’s intimation, there is no temporal requirement in the claim; claim 1 does not require that a second data portion be read immediately after the user requests a resume operation. Nor does claim 1 preclude any intervening operational steps between the resume request and the reading of a second data portion. Although it may be true that the first step in the copying operation to occur upon resuming after a pause is a writing step, continuation of the file transfer operation of Wiese as modified by Chowdhury will necessarily result in subsequent reading (and writing) steps, and such reading steps of the resumed file transfer operation occur in response to the user having requested the resume operation. *See* Ex. 1004, 6:59–67 (explaining that, upon resuming the transfer operation, “the file transfer operation proceeds until the file transfer operation is complete or

until the user initiates another task”), Fig. 4. Claim 1 requires no more. Moreover, Patent Owner’s argument is not responsive to the challenge set forth in the Petition, in which the pause is initiated after a write step and which is supported by Wiese. *See* Pet. 34–38; *see also* Ex. 1004, 6:23–41 (explaining that a determination of whether the user has initiated a task is made after each write (and read) step, and, if such a task has been initiated, the file transfer operation yields the CPU to the user-initiated task).

Patent Owner identifies one scenario in which such subsequent reading steps may not occur: when the pause operation is requested after the final data portion of the source file has been read but before that data portion has been written to the target file. PO Resp. 37. This hypothetical scenario, though possible, is not responsive to the challenge as set forth in the Petition, in which the pause operation is requested while there are source file data portions remaining to be transferred to the target file. *See* Pet. 34–38. Wiese explains that “[o]nce the user initiated task is complete, the CPU 105 is turned back over to the file transfer operation,” and “the file transfer operation resumes” and “proceeds until the file transfer operation is complete or until the user initiates another task.” Ex. 1004, 6:59–67. Thus, Patent Owner fails to identify any deficiency in Petitioner’s challenge.

Patent Owner next faults Petitioner’s motivation for combining the teachings of Wiese and Chowdhury, arguing that “[t]he express disclosure in Wiese confirms there would have been no motivation to modify the system to enable a user to pause the file transfer operation merely for the sake of a pause” and that “[t]he proposed modification would only degrade the ability of the Wiese system to achieve its express purpose” of reducing overall file transfer time. PO Resp. 37–39.

This argument is unpersuasive for reasons similar to those discussed above. Patent Owner's argument presumes a *replacement* of Wiese's automatic pausing, wherein the Petition *adds* Chowdhury's manual pausing such that it would be a second option available to the user. Pet. 31–32. To the extent that Patent Owner argues that Wiese provides no motivation for modifying its system (*see* PO Resp. 38), we note that the reason to modify or combine references need not be found in the references themselves. *See KSR*, 550 U.S. at 415–21 (2007). Nor do we agree that Wiese teaches away from manual control, as Patent Owner has not identified any disparagement of manual control. *See* PO Resp. 39; Dec. 27 (citing *In re Kubin*, 561 F.3d 1351, 1357 (Fed. Cir. 2009); *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004)). Additionally, Patent Owner fails to persuasively explain how adding Chowdhury's manual pause/play user interface as an additional trigger operating together with Wiese's automatically determined user-initiated task pause/play functionality would be beyond the skill set of a person of ordinary skill in the art.

Patent Owner next argues that Chowdhury's transfer is from volatile memory, not from a source file to a target file, which Patent Owner argues is nonvolatile memory. PO Resp. 39–43. Patent Owner argues that, as used in the '229 patent, "target file on a computer system" means a target file stored on nonvolatile storage. Patent Owner argues that Petitioner's declarant testified that a "file" is something stored on nonvolatile memory. *Id.* at 40–42 (citing Ex. 2004, 44:6–8, 46:2–4, 50:17–51:1). Patent Owner concludes that "Chowdhury's disclosure is distinguishable from the claimed copying" because "Chowdhury generally deals with temporarily transferring multimedia files (e.g., a video) from *volatile* memory to a decoder that is

designed to process the data for immediate playback to a user.” *Id.* at 42–43 (citing Ex. 2001 ¶ 13).

Initially, we note that Chowdhury discloses that the files are stored in “memory.” *See, e.g.*, Ex. 1005, 3:54–57. The words *volatile* and *nonvolatile* do not appear in Chowdhury. Patent Owner’s reliance on the testimony of Petitioner’s declarant is also misplaced. Petitioner’s declarant, Dr. Miller, testified that “the definition of file is a relative[ly] broad one.” Ex. 2004, 45:19–20. In providing the answer quoted by Patent Owner (*see* PO Resp. 40), Dr. Miller stated “you’re asking a very vague, broad question. I can’t really answer it without you asking something more specific.” Ex. 2004, 46:9–11. Patent Owner further mischaracterizes Dr. Miller’s testimony on page 41 of the Response, interpreting Exhibit 2004, page 50, line 17 to page 51, line 1 as “testifying that the specific examples in the ’229 specification ‘clearly’ refer to nonvolatile storage.” This is incorrect on two fronts. First, the cited testimony is a discussion of Romrell, not the ’229 patent. *See* Ex. 2004, 50:4–9 (asking Dr. Miller to review the paragraph at column 9, lines 39–45 of Romrell). Second, Dr. Miller testified that Romrell column 9, lines 39–45 refers to both volatile and nonvolatile memory, and then identified examples of nonvolatile memory in response to a request to do so. *Id.* at 50:12–16 (“Q. Okay. So storage here, is this referring to storage in the context of volatile memory or nonvolatile memory? A. Both. Q. How is it referring to nonvolatile?”).

Moreover, whether Chowdhury is directed exclusively to volatile memory is irrelevant here, as the Petition does not suggest bodily incorporating Chowdhury’s example of transferring video files from a memory to a decoder. Rather, the Petition applies Chowdhury’s teachings of

manually pausing and manually resuming a file transfer operation to Wiese's file transfer operation. Pet. 29–38. Patent Owner's piecemeal arguments attacking Chowdhury individually are unpersuasive of error in the challenge based on the combined teachings of Wiese and Chowdhury as set forth in the Petition. *See In re Keller*, 642 F.2d 413, 426 (CCPA 1981) (“[O]ne cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references.”).

Finally, Patent Owner argues that there is no showing of motivation to include Chowdhury's PLAY feature into a copying operation because “one does not associate resuming a copying operation by ‘playing’ it.” PO Resp. 43. According to Patent Owner, “a user might be misled by such an interface into thinking that a ‘PLAY’ function can *initiate* the file transfer process.” *Id.* at 43–44.

Patent Owner appears to be criticizing Chowdhury's “PLAY” label. This does not adequately explain, however, why the actual feature—resuming the file transfer operation—would not be applicable to Wiese's system. Additionally, this is another improper bodily incorporation argument; a skilled artisan, being “a person of ordinary creativity, not an automaton,” would incorporate appropriate labels (such as “pause” and “resume”) when applying Chowdhury's teachings to Wiese's file transfer operation. *See KSR*, 550 U.S. at 421 (2007).

c. Conclusion

Based on the record before us, we are persuaded by Petitioner's showing, which we adopt as our own, that claim 1 would have been obvious in view of Wiese and Chowdhury.

3. Claims 2, 8, and 9

We have reviewed the Petition, Patent Owner Response, and evidence of record and determine that Petitioner has shown, by a preponderance of the evidence, that claims 2, 8, and 9 would have been obvious in view of Wiese and Chowdhury.

Claim 2 depends from claim 1 and recites “wherein the first and second data portions each include one or more blocks of data.” Ex. 1001, 9:57–59. Petitioner contends that “*Wiese’s* ‘file information is transferred as a continuous stream of data via one or more data blocks herein referred to as ‘chunks.’” Pet. 38 (citing Ex. 1004, 4:50–52). Patent Owner does not make any arguments with respect to claim 2 apart from its dependence from claim 1. PO Resp. 44. We are persuaded by Petitioner’s showing, which we adopt, that claim 2 would have been obvious in view of Wiese and Chowdhury.

Claim 8 depends from claim 1 and further recites “selecting a block size, the block size corresponding to the size of the first and second data portions.” Ex. 1001, 10:15–17. Petitioner contends that Wiese discloses these recitations by determining the optimum chunk size, and transferring files as a continuous stream of data via chunks of data blocks. Pet. 39–40 (citing Ex. 1004, 4:50–52, 5:53–58; Ex. 1003 ¶ 47). Patent Owner does not make any arguments with respect to claim 8 apart from its dependence from claim 1. PO Resp. 44. We are persuaded by Petitioner’s showing, which we adopt, that claim 8 would have been obvious in view of Wiese and Chowdhury.

Claim 9 depends from claim 8 and recites “wherein the selecting further includes[] testing a transmission speed between a source file location

corresponding with the source file and a target file location corresponding with the target file.” Ex. 1001, 10:18–22. Petitioner notes that Wiese bases its determination of the optimum chunk size, in part, on “the throughput of the system in bytes/second.” Pet. 40 (citing Ex. 1004, 5:53–58). Petitioner argues that this system throughput corresponds to the recited transmission speed. *Id.* (citing Ex. 1003 ¶ 47). Petitioner further notes that Wiese measures the system throughput capacity, and contends that such measuring corresponds to the recited testing a transmission speed. *Id.* (citing Ex. 1004, 5:61). Patent Owner does not make any arguments with respect to claim 9 apart from its dependence from claim 1. PO Resp. 44. We are persuaded by Petitioner’s showing, which we adopt, that claim 9 would have been obvious in view of Wiese and Chowdhury.

4. Claim 6

Claim 6 depends directly from claim 1 and further requires, in pertinent part “wherein the source file resides on a remote computer system and wherein the target file resides on the computer system.” Ex. 1001, 10:5–7. Petitioner identifies Wiese’s computer system 100 as the recited remote computer system, and Wiese’s network server 120 as the recited computer system. Pet. 38–39 (citing Ex. 1004, 3:65–67 (“the source location **215**, which may be, for example, a hard disk internal to the computer system **100**”), 4:7–9 (“the destination location, which may be, for example, a memory location in the network server **120**”)).

When addressing claim 1, however, Petitioner identifies Wiese’s computer system 100 as corresponding to the recited computer system. *See, e.g.*, Pet. 36 (“*Wiese*’s yielding of the CPU [105] makes *Wiese*’s computer system [100] ‘available for other processing operations.’”). Thus,

Petitioner's consideration of the recited computer system in claim 6 is inconsistent with Petitioner's treatment of that term in parent claim 1. We note that neither Petitioner nor Petitioner's declarant argues that it would have been obvious to transfer data in the reverse of Wiese's example—that is, from network server 120 to computer system 100.

For the foregoing reasons, on this record, Petitioner has not shown, by a preponderance of the evidence, that claim 6 would have been obvious in view of Wiese and Chowdhury.

5. Claims 10, 11, 14–16, 18, and 19

Independent claim 10 recites, in relevant part, “means for pausing the copy tool in response to a user request from a user interface, wherein the computer system is available for other processing operations following the pausing.” Ex. 1001, 10:35–38. Independent claim 16 similarly recites, in relevant part, “means for pausing the copying in response to a user requesting a pause operation from a user interface, wherein the computer system is available for other processing operations following the pausing.” *Id.* at 11:16–19. As noted above, we construe these means-plus-function terms in accordance with Petitioner's interpretation, which identifies the structure corresponding to the recited function as “the information handling system of Figure 8 or a similar general purpose computer system, *programmed to perform the steps described above (referring to Figure 6) and equivalents thereof.*” Pet. 17 (emphasis added).

Figure 6 of the '229 patent illustrates that the means for pausing includes an extended pause at branch 609. The extended pause includes steps of providing a pause file name (input 650), writing the source file name to the pause file (output 660), writing the target file name to the pause

file (output 670), writing the block size being used by the copy operation to the pause file (output 680), and writing the block number currently being read and written by the copy operation to the pause file (output 690).

Ex. 1001, Fig. 6, 7:21–40.

In addressing the means for pausing term of claim 10, Petitioner refers to its treatment of the pausing step of claim 1 discussed in section II.F.2 above and cites to a description of Wiese’s general or personal computer system 100. Pet. 42–43 (citing Ex. 1004, 3:21–47). In addressing the means for pausing term of claim 16, Petitioner relies on its treatment of the pausing step of claim 1 and the means for pausing term of claim 10. *Id.* at 48.

Petitioner, however, does not address the extended pause illustrated in Figure 6 of the ’229 patent, which is the algorithmic part of the corresponding structure for the means for pausing. Nor does Petitioner direct us to any disclosure in the references describing the writing steps of the extended pause function, or argue that the pause/play functionality of the proposed combination of Wiese and Chowdhury includes or invokes functionality that is the same as or equivalent to the functionality described in Figure 6, including the extended pause functionality. Petitioner’s Reply makes conclusory assertions, but does not direct us to where the extended pause illustrated in Figure 6 of the ’229 patent is addressed in the Petition. *See* Pet. Reply 9–10. Thus, we determine that, based on the record before us, Petitioner has not demonstrated that the combination of Wiese and Chowdhury describes the recited means for pausing.

Accordingly, for at least the foregoing reasons, on this record, Petitioner has not shown, by a preponderance of the evidence, that claims 10

and 16, or their dependent claims 11, 14, 15, 18, and 19, would have been obvious in view of Wiese and Chowdhury.

G. Challenge Based on Wiese, Chowdhury, Miller, and Day

Petitioner asserts that the combination of Wiese, Chowdhury, Miller, and Day describes all elements of claims 3–5, 12, 13, and 17, and that it would have been obvious to combine Wiese, Chowdhury, Miller, and Day. Pet. 5, 51–55.

1. Claims 3–5

We have reviewed the Petition, Patent Owner Response, and evidence of record and determine that Petitioner has shown, by a preponderance of the evidence, that claims 3–5 would have been obvious in view of Wiese, Chowdhury, Miller, and Day.

Claim 3 depends from claim 1 and recites “wherein the pausing further includes[] writing an index to a storage area, the index including a pointer to the second data portion within the source file.” Ex. 1001, 9:60–63. Petitioner contends that Miller discloses a frame data structure that corresponds to the recited index, and that Day discloses a file pointer that represents an index or address within a file. Pet. 51 (citing Ex. 1003 ¶ 55; Ex. 1007, 9:1–3, Table 2; Ex. 1008, 4). Petitioner reasons that it would have been obvious to a person of ordinary skill in the art to integrate Day’s pointer into Miller’s frame structure “to augment the block and frame number, facilitating efficient data transmission.” *Id.* (citing Ex. 1003 ¶ 67). Petitioner further reasons that “adding *Day’s* pointer into *Miller’s* frame data structure would enable direct identification of the portions of *Miller’s* file requiring retransmission,” and that “[t]he incorporation of *Day’s* pointer into

Miller's frame data structure would explicitly identify the frames needing retransmission.” *Id.* at 51–52 (citing Ex. 1003 ¶ 67). Petitioner reasons that it would have been obvious to a person of ordinary skill in the art to “integrate[] *Miller's* frame data structure with *Wiese's* file transfer so that when a transfer is suspended, indicators of non-transferred portions of the file are stored in the frame data structure. When the transfer is resumed, *Miller's* frame data structure is accessed to determine from where to resume the transfer.” *Id.* at 52 (citing Ex. 1003 ¶ 68). Petitioner further reasons that “*Miller's* frame data structure would enable accurate tracking of non-transferred portions of *Wiese's* file.” *Id.* (citing Ex. 1003 ¶ 68).

Miller discloses that its frame data structure identifies specific portions of data blocks being transferred from a server to a client. *See* Ex. 1007, 9:1–3, Table 2. Day discloses a “file pointer [that] represents an index or address within [a non-local] file” to be accessed and transferred. Ex. 1008, 2, 4. Petitioner has articulated reasoning with rational underpinning to support incorporating the teachings of Miller and Day into *Wiese's* system as modified by Chowdhury. Patent Owner does not make any arguments with respect to claim 3 apart from its dependence from claim 1. PO Resp. 44. We are persuaded by Petitioner's showing, which we adopt, that claim 3 would have been obvious in view of *Wiese*, *Chowdhury*, *Miller*, and *Day*.

Claim 4 depends from claim 3 and recites “wherein the writing an index to a storage area further includes: writing a source file path name to the storage area; and writing a target file path to a storage area.” Ex. 1001, 9:64–67. Petitioner notes that Miller discloses that the operator is enabled to maintain a list of transmission file descriptors and transmission parameters,

and argues that a person having ordinary skill in the art would have understood these descriptors and parameters to include a source file path name and a target file path. Pet. 52–53 (citing Ex. 1003 ¶ 56; Ex. 1007, 13:46–48). Petitioner reasons that a person having ordinary skill in the art would have understood that “writing *Miller’s* frame data structure . . . to a storage area would have included writing the list of transmission file descriptors and transmission parameters to [the] storage area, e.g., so that the source and target file path associated with the transfer represented by the frame data structure can be identified.” *Id.* (citing Ex. 1003 ¶ 56).

Petitioner’s declarant testifies:

A POSITA also would have understood that *Miller’s* transmission file descriptors and transmission parameters would be maintained by the server along with the frame data structure for a given data transfer operation. Maintaining this information together would allow identification of the transmission file descriptors and transmission parameters for a given data transfer operation that is represented by the frame data structure.

Ex. 1003 ¶ 56. Patent Owner does not make any arguments with respect to claim 4 apart from its dependence from claim 1. PO Resp. 44. We are persuaded by Petitioner’s showing, which we adopt, that claim 4 would have been obvious in view of Wiese, Chowdhury, Miller, and Day.

Claim 5 depends from claim 4 and recites “wherein the reading a second data portion further comprises[] reading the index, source file path name, and target file path name from the storage area.” Ex. 1001, 10:1–4. Petitioner reiterates its contention that *Miller’s* transmission file descriptors and transmission parameters are written to the storage area. Pet. 53. Petitioner reasons that a person having ordinary skill in the art “would have

understood that to retransmit the blocks indicated by *Miller's* frame data structure, the transmission file descriptors and transmission parameters would be read from the storage area to identify the source and target for retransmission.” *Id.* (citing Ex. 1003 ¶ 56). Patent Owner does not make any arguments with respect to claim 5 apart from its dependence from claim 1. PO Resp. 44. We are persuaded by Petitioner’s showing, which we adopt, that claim 5 would have been obvious in view of Wiese, Chowdhury, Miller, and Day.

2. Claims 12, 13, and 17

Claims 12 and 13 each depend directly from claim 10, and claim 17 depends directly from claim 16. Petitioner’s arguments regarding claims 12, 13, and 17 do not cure the deficiencies noted in section II.F.5 above regarding parent claims 10 and 16.

Accordingly, for at least the same reasons as discussed above, on this record, Petitioner has not shown, by a preponderance of the evidence, that claims 12, 13, and 17 would have been obvious over Wiese, Chowdhury, Miller, and Day.

H. Challenge Based on Wiese, Chowdhury, and Raucci

Petitioner asserts that the combination of Wiese, Chowdhury, and Raucci describe all elements of claim 7, and that it would have been obvious to combine Wiese, Chowdhury, and Raucci. Pet. 5, 55–56.

Claim 7 depends from claim 1 and further recites “displaying an amount completed, the amount completed showing a total amount of data written to the target file.” Ex. 1001, 10:12–14. Petitioner contends that Raucci’s progress bar “displays an amount completed, showing a total

amount of data written to the target file.” Pet. 55 (citing Ex. 1003 ¶ 58; Ex. 1009, 10). Petitioner reasons that a person having ordinary skill in the art “would have found it obvious to integrate *Raucci*’s progress bar into *Wiese*’s file transfer to display information about the progress of the file transfer.” *Id.* According to Petitioner, “[a] display showing the total amount of data written allows a user to make a decision about whether to pause the transfer to make the computer system available for other processing operations.” *Id.* at 55–56 (citing Ex. 1003 ¶ 69).

Raucci discloses the main window of its browser has a progress bar one can use to track Web document transfers. Ex. 1009, 10. Patent Owner does not make any arguments with respect to claim 7 apart from its dependence from claim 1. PO Resp. 44. We are persuaded by Petitioner’s showing, which we adopt, that claim 7 would have been obvious in view of *Wiese*, *Chowdhury*, and *Raucci*.

I. Challenge Based on Romrell and Chowdhury

Petitioner asserts that the combination of *Romrell* and *Chowdhury* describe all elements of claim 1, and that it would have been obvious to combine *Romrell* and *Chowdhury*. Pet. 5, 59–67.

1. Petitioner’s Contentions

Claim 1 recites “[a] method for copying data from a source file to a target file on a computer system.” Ex. 1001, 9:45–46. Petitioner contends that “*Romrell* discloses a method for ‘transmission of data from a source network device to a destination network device.’” Pet. 63 (citing Ex. 1006, 2:12–13). We are persuaded by Petitioner’s showing and agree that *Romrell*

describes “[a] method for copying data from a source file to a target file on a computer system.”

Claim 1 recites “reading a first data portion from the source file” and “writing the first data portion to the target file.” Ex. 1001, 9:47–48.

Petitioner notes that Romrell discloses a process for the transmission of a network object from a source network device to a destination network device, and argues that this process includes reading data from the source file and writing data to the target file. Pet. 63 (citing Ex. 1003 ¶ 51; Ex. 1006, 1:43–44, 2:12–13, 2:47–49). Petitioner notes that Romrell discloses storing a partially-downloaded data object when the download is paused, and argues that Romrell, therefore, discloses “that a portion of the data object can be downloaded.” *Id.* (citing Ex. 1003 ¶¶ 52–53; Ex. 1006, 8:29). Thus, Petitioner concludes, Romrell teaches the claimed “reading a first data portion from the source file” and “writing the first data portion to the target file.” *Id.* at 64. Notwithstanding Patent Owner’s arguments, which we discuss below, we are persuaded by Petitioner’s showing and agree that Romrell describes “reading a first data portion from the source file” and “writing the first data portion to the target file.”

Claim 1 recites “pausing the copying in response to a user requesting a pause operation from a user interface, wherein the computer system is available for other processing operations following the pausing.” Ex. 1001, 9:49–52. Petitioner notes that Romrell’s “deferred continuation” provides the user with an interface to checkpoint a download at any time, causing the local proxy to store the partially-downloaded data object, which is deferred for later continuation. Pet. 64 (citing Ex. 1006, 8:24–30). Petitioner argues that Romrell’s deferred continuation corresponds to the recited pausing the

copying in response to a user requesting a pause operation from a user interface. *Id.* (citing Ex. 1003 ¶¶ 52–53). Petitioner contends that Romrell’s disclosure that pausing the download allows the user to browse elsewhere indicates that the computer system is available for other processing operations following the pausing. *Id.* at 65–66 (citing Ex. 1006, 8:24–32). Notwithstanding Patent Owner’s arguments, which we discuss below, we are persuaded by Petitioner’s showing and agree that Romrell describes “pausing the copying in response to a user requesting a pause operation from a user interface, wherein the computer system is available for other processing operations following the pausing.”

Petitioner also relies on Chowdhury, “[t]o the extent that *Romrell* is viewed as lacking explicit disclosure,” to teach the recited pausing the copying in response to a user requesting a pause operation from a user interface. *Id.* at 64–65. Specifically, Petitioner relies on Chowdhury’s PAUSE functionality, and reasons that it would have been obvious to a person having ordinary skill in the art to integrate Chowdhury’s teaching of pausing a file transfer in response to a user request into Romrell’s transmission process to “provide *Romrell*’s data transmission process with an explicit interface for pausing and resuming data transfer.” Pet. 61, 64–65 (citing Ex. 1003 ¶¶ 70–75; Ex. 1005, 5:60; Ex. 1006, 8:27–30). Chowdhury discloses a PAUSE API function that “is called to pause the transfer of a video file.” Ex. 1005, 5:57–60. Petitioner has articulated reasoning with rational underpinning to support incorporating Chowdhury’s PAUSE functionality into Romrell’s data transmission operation. Pet. 59–62. We are persuaded by Petitioner’s showing and agree that Chowdhury teaches “pausing the copying in response to a user requesting a pause operation from

a user interface” and that it would have been obvious to incorporate such pausing into Romrell’s data transfer operation.

Claim 1 recites “reading a second data portion from the source file in response to the user requesting a resume operation” and “writing the second data portion to the target file.” Ex. 1001, 9:53–55. Petitioner notes that the Romrell deferred continuation procedure stores a partially-downloaded data object when the user checkpoints a download operation, and that the download of the data object can be resumed “from an offset equal to the number of bytes previously stored.” Pet. 66 (citing Ex. 1006, 8:29, 41–42). Petitioner argues that the portion of the object downloaded when the process is resumed corresponds to the recited second data portion, and that the resumed download process includes reading data from the source file and writing data to the target file. *Id.* (citing Ex. 1003 ¶¶ 52–53). We are persuaded by Petitioner’s showing and agree that Romrell describes “reading a second data portion from the source file in response to the user requesting a resume operation” and “writing the second data portion to the target file.”

2. Patent Owner’s Contentions

Patent Owner presents several arguments challenging the combination of Romrell and Chowdhury. PO Resp. 44–49. First, Patent Owner repeats its arguments that Chowdhury is disqualified as prior art under 35 U.S.C. § 103(c)(1) and that “Chowdhury does not cure the deficiencies of Romrell for the reasons [analogous] to those addressed above concerning Grounds 1–3 of the Petition.” *Id.* at 44–45. Patent Owner’s arguments regarding Chowdhury are unpersuasive for the reasons discussed in section II.F above.

Patent Owner next argues that Romrell discloses downloading data, but does not disclose that the downloaded data is a file. *Id.* at 45. Patent

Owner argues that Romrell distinguishes its process from the HTTP 1.1 protocol, and, therefore, reliance on the protocol by Petitioner's declarant is inappropriate. *Id.* at 45–46 (citing Ex. 1003 ¶ 51; Ex. 1006, 1:39–49).

Patent Owner argues that Petitioner's declarant conceded the asserted distinction between Romrell's process and the HTTP 1.1 protocol on cross examination. *Id.* at 46 (citing Ex. 2004, 52:22–53:2).

Patent Owner's arguments are not persuasive. Romrell recognizes that, when downloading information from the World Wide Web (“Web”), the typical method of recovering from a communications disruption during data transfer is to either restart the download from the beginning or abandon the download operation. Ex. 1006, 1:18–25. Romrell further recognizes that checkpointing, a technique used to keep track of data that has been successfully transmitted, is a possible solution to this problem, but adding this functionality to the Internet would undesirably require software changes for existing Web browsers and servers. *Id.* at 1:31–38. Romrell notes that the HTTP 1.1 protocol allows a requesting device to designate a portion of a file to be downloaded, but notes that it too requires software changes to the source device and the destination device. *Id.* at 1:39–46. Romrell then identifies the objective of its disclosed invention: “a system which provides the benefits of checkpointed data transfer, but without requiring changes to existing Internet infrastructure.” *Id.* at 1:47–49. Thus, the distinction made between Romrell's configuration and the HTTP 1.1 protocol is that Romrell provides checkpointing but, unlike the HTTP 1.1 protocol, it does not require software changes to existing infrastructure. Patent Owner's contention that the distinction means that Romrell cannot download *files* is without merit.

Patent Owner's characterization of Dr. Miller's testimony is also unpersuasive. The testimony cited by Patent Owner reads: "Q. Is it your understanding that Romrell distinguishes its system from HTTP 1.1? A. It's my understanding that what Romrell is saying is that rather than wait for everyone to adopt HTTP 1.1, we want to provide a solution that will work without having to adopt HTTP 1.1." Ex. 2004, 52:22–53:2. This is not a concession, as intimated by Patent Owner, that Romrell does not transfer files.

Patent Owner further asserts that Dr. Miller "conceded that the term 'file' itself connotes 'something that is stored on *nonvolatile* memory and given a name'" and "conceded during his cross examination that a network object, as described in Romrell, is not necessarily a file." PO Resp. 46–47 (citing Ex. 2004, 46:2–8). Patent Owner characterizes Romrell as disclosing "downloading network objects to only volatile cache memory of a client for rendering within a web browser" and argues that Romrell "does not expressly or inherently disclose copying a file according to the specific process set forth in the claim language." *Id.* at 47 (citing Ex. 1006, 9:16–19).

As noted above, Dr. Miller testified that "the definition of file is a relative[ly] broad one." Ex. 2004, 45:19–20. When asked if a data object is synonymous with a file, Dr. Miller responded:

That's a very vague question. A file generally is regarded as something that is stored on nonvolatile memory and given a name.

A data object is even more broad or vague than that. It can be something that exists in memory as part of a program. It could also be a file.

That's why I'm saying that you're asking a very vague, broad question. I can't really answer it without you asking something more specific.

Id. at 46:2–11. Thus, Dr. Miller testified that a “data object” has a broad definition that encompasses a “file.” Mr. Easttom, Patent Owner’s declarant, contradicts Patent Owner’s intimation that a “file,” as used in the ’229 patent, must reside *only* in nonvolatile memory by testifying:

A file, by definition at some point, is in nonvolatile storage. Now, you can take it out. For example, a Word document file on your computer. Yes, you can open it up and load it into memory, but at some point all files are stored in nonvolatile storage.

Ex. 1016, 20:5–10. Thus, Patent Owner’s declarant acknowledges that a “file” can be taken out of nonvolatile memory; that is, a file can be located in volatile memory. Accordingly, even if we were to agree that Romrell is limited to “downloading network objects to only volatile cache memory” (*see* PO Resp. 47), which we do not for the reasons discussed below, the evidence of record does not preclude such downloading as corresponding to the recited “copying data from a source file to a target file” as suggested by Patent Owner, as Patent Owner’s declarant testifies that a file can be held in volatile memory such as a cache.

Moreover, Romrell is not limited to downloading network objects to volatile cache memory. Rather, Romrell discloses the “transmission of a data stream from a source computer to a destination computer.” Ex. 1006, 1:54–55. Romrell further discloses that, according to its “deferred continuation” operation, “the user is provided with an interface to checkpoint downloads at any time.” *Id.* at 8:22–26. “If the user selects the deferred continuation option during a particular download, local proxy **48** checkpoints the connection *by storing the partially-downloaded data object* (deferred for later continuation). . . . This allows the user to, for example,

. . . *disconnect* until a later time.” *Id.* at 8:26–32 (emphases added). Thus, Romrell discloses storing the downloaded data such that it is available after the user disconnects. This discloses, or at least strongly suggests, that the downloaded data can be stored in nonvolatile memory. *See* Ex. 2004, 44:6–8 (“Nonvolatile storage is storage where if you take the power away, the data still remains in the storage.”); *see also* PO Resp. 41 (citing same).

Patent Owner next argues that Romrell’s process changes or transcodes the data as part of the download process and, therefore, does not write the same data portion that was read. PO Resp. 47 (citing Ex. 2001 ¶¶ 23–24; Ex. 1006, 2:45–49, 2:60–63, 3:2–4).

We disagree with Patent Owner’s interpretation. Romrell states that “remote proxy **36** is *capable* of changing content received from network **18** prior to returning it to a requesting network device **12**, as is explained further below.” Ex. 1006, 2:61–63 (emphasis added). Thus, Romrell does not state, as suggested by Patent Owner, that all downloaded data is transcoded. Additionally, Romrell discloses that the transcoding can be in the form of compressing or scaling data (*id.* at 3:2–7), which facilitates transmission over a network. Romrell further discloses that any such transcoded data is returned to its original condition prior to being delivered to the target computer system. *Id.* at 6:1–16 (“[N]etwork client **12** includes an HTTP local proxy **48** coupled to a client-side parser **50** which, similar to parser **22** of transcoding server **34**, controls one or more client-side transcode service providers **52**. Each transcode service provider **52** may be configured, for example, to transcode content before it is rendered to a user or to perform a counterpart transcoding function (e.g., *decoding, decompression*) with

respect to a function performed by a corresponding transcode service provider **24** of transcoding server **34**.” (emphasis added)).

Patent Owner next argues that Romrell’s process does not include reading from a source file. PO Resp. 47–48. According to Patent Owner, Romrell only discloses downloading “from volatile server-side cache memory.” *Id.* at 48 (citing Ex. 1006, 3:53–57, 4:2–3).

Patent Owner’s argument is unpersuasive for similar reasons as discussed above. Notably, the evidence of record indicates that a “file,” as used in the ’229 patent, can be held in volatile memory such as a cache. Thus, even if we agree that Romrell is limited to downloading data from a volatile memory, which we do not for similar the reasons provided above, the evidence of record does not preclude such downloading as corresponding to the recited reading first and second data portions from a source file.

Finally, Patent Owner argues that that Petitioner’s expert says that in Romrell’s process, the *source* computer, not the *destination* computer, would be made available for other tasks. PO Resp. 48–49 (citing Pet. 64; Ex. 1003 ¶ 52).

We agree that Dr. Miller references the source computer. *See* Ex. 1003 ¶ 52. However, the Petition argues that Romrell’s destination computer is made available for other processing operations. Pet. 65–66 (citing Ex. 1006, 8:24–32). As Romrell discloses that its deferred continuation procedure allows the *user* to browse elsewhere while the download is paused (*see* Ex. 1006, 8:30–32), we are persuaded by Petitioner’s showing that Romrell’s destination computer would be made available for other tasks.

3. Conclusion

Based on the record before us, we are persuaded by Petitioner's showing, which we adopt as our own, that claim 1 would have been obvious in view of Romrell and Chowdhury.

J. Motion for Observations

Patent Owner filed a Motion for Observations (Paper 53, "PO Mot. Obs."), to which Petitioner filed a Response (Paper 58, "Pet. Resp."). To the extent Patent Owner's Motion for Observations pertains to testimony purportedly impacting Dr. Miller's or Mr. Jakel's credibility, we have considered Patent Owner's observations and Petitioner's responses in rendering this Final Written Decision, and accorded Dr. Miller's or Mr. Jakel's testimony appropriate weight in view of Patent Owner's observations and Petitioner's response to those observations. *See* PO Mot. Obs. 2–9; Pet. Resp. 1–8.

III. CONCLUSION

Based on the evidence and arguments, Petitioner has demonstrated by a preponderance of the evidence that claims 1–5 and 7–9 of the '229 patent are unpatentable. Petitioner, however, has failed to meet its burden of proof regarding the unpatentability of claims 6 and 10–19.

IV. ORDER

Accordingly, it is:

ORDERED that claims 1–5 and 7–9 of the '229 patent are determined to be unpatentable;

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FURTHER ORDERED that Petitioner's request for cancellation of claims 6 and 10–19 is *denied*; 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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