

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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UNIFIED PATENTS, LLC,  
Petitioner,

v.

MIRROR IMAGING, LLC,  
Patent Owner.

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IPR2022-00184  
Patent 9,928,275 B2

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Before KARL D. EASTHOM, JUSTIN T. ARBES, and MICHAEL T.  
CYGAN, *Administrative Patent Judges*.

CYGAN, *Administrative Patent Judge*.

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

## I. INTRODUCTION

Unified Patents, LLC (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting institution of *inter partes* review of claims 1–12, 14, and 15 of U.S. Patent No. 9,928,275 B2 (Ex. 1001, “the ’275 patent”). Mirror Imaging, LLC (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). With our permission, Petitioner filed a Reply, to address arguments as to discretionary denial under 35 U.S.C. § 314(a). Paper 7 (“Reply”). Patent Owner filed a Sur-reply. Paper 8 (“Sur-reply”).

Pursuant to 35 U.S.C. § 314(a), an *inter partes* review may be instituted only if “the information presented in the petition . . . and any [preliminary] response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

For the reasons given below, on this record Petitioner has established a reasonable likelihood that it would prevail in showing the unpatentability of at least one of claims 1–12, 14, and 15 of the ’275 patent. Accordingly, we institute an *inter partes* review as to all of the challenged claims of the ’275 patent and all of the asserted grounds of unpatentability.

## II. BACKGROUND

### A. Real Parties-in-Interest

Petitioner identifies itself, Unified Patents, LLC (Petitioner) as the sole real-party in interest. Pet. 76. Patent Owner identifies itself, Mirror Imaging, LLC as the real party-in-interest. Paper 4, 2.

### B. Related Proceedings

The parties identify the following litigation that involves the patent at issue: *Mirror Imaging, LLC v. United Services Automobile Association*, 6-

21-cv-00575 (W.D. Tex. filed Jun. 07, 2021); *Mirror Imaging, LLC v. BancorpSouth Bank*, No. 6-21-cv-00578 (W.D. Tex. filed Jun. 07, 2021); *Mirror Imaging LLC v. Capital One, NA*, No. 6-21-cv-00517 (W.D. Tex. filed May. 21, 2021); *Mirror Imaging LLC v. PNC Bank, NA*, No. 6-21-cv-00518 (W.D. Tex. filed May. 21, 2021); *Mirror Imaging LLC v. Bank of America, NA*, No. 6-21-cv-00463 (W.D. Tex. filed May 04, 2021); *Mirror Imaging LLC v. JPMorgan Chase Bank, NA*, No. 6-21-cv-00464 (W.D. Tex. filed May 04, 2021); and *Mirror Imaging LLC v. Wells Fargo Bank, NA*, No. 6-21-cv-00465 (W.D. Tex. filed May 04, 2021). Pet. 76–77; Prelim. Resp. 3. A further case, *Mirror Imaging, LLC v. TruWest Credit Union*, No. 6-21-cv-00577 (W.D. Tex. filed Jun. 07, 2021), is listed in the Petition, and noted in the Reply as having been dismissed with prejudice. Reply 1. The Reply also characterizes the *BancorpSouth* proceeding as having been “dismissed after [Patent Owner] did not oppose summary judgment.” *Id.* Patent Owner does not dispute this characterization. *See* Sur-reply.

### *C. The '275 Patent (Ex. 1001)*

The '275 patent is titled “Remote Document Retrieval and Storage System.” Ex. 1001, code (54). The '275 patent issued from Application Serial No. 14/857,854, filed on September 18, 2015, and claims priority through a chain of applications to provisional application No. 60/129,021, filed on April 13, 1999. *Id.* at codes (21), (22), (60), (63).

Patent Owner describes the '275 patent as

directed to an apparatus and method that solved the technological problems associated with back-office records retrieval by interlinking multiple data storage facilities. This technological solution and inventive concept allowed financial institutions, for the first time, to seamlessly outsource the responsibilities associated with obtaining archived documents. Moreover, this

technological solution greatly improved the functionality of data archive systems by providing unconventional access to both the on-site and off-site storage databases from a common interlinked interface.

Prelim. Resp. 2–3.

*D. Illustrative Claim*

Claim 1 is reproduced below:<sup>1</sup>

1. (i) A system for selectively storing and retrieving electronic images of a plurality of financial documents, each electronic image being associated with a document parameter that includes a numerical sequence that is representative of a record date of the corresponding financial document, the system comprising:
  - (ii) a first storage system including a first fixed medium, the first storage system being associated with a first entity and configured to:
    - (a) store at least some of the electronic images for the plurality of financial documents
    - (b) wherein the document parameter for each of the at least some of the electronic images that are configured to be stored in the first storage system are greater than a predetermined parameter, wherein the predetermined parameter is a date or time period;
  - (iii) a second storage system including a second fixed medium, wherein the second storage system is located remotely from the first storage system, the second storage system being associated with a second entity and configured to:
    - (a) store at least some of the electronic images for the plurality of financial documents
    - (b) wherein the document parameter for each of the at least some of the electronic images configured to be stored in the second storage system are less than or equal to the predetermined parameter;
  - (iv) an electronic processor which has electronic access to the first and second storage systems and is also interlinked to the first storage system and the second storage system, wherein the electronic processor is interlinked to the first storage system and the second storage system through an interlinked interface, wherein the electronic processor is configured to:

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<sup>1</sup> Reference numbers and letters added by Petitioner (Pet. 30–57) appear in parentheses.

- (a) receive a request for one of the stored electronic images of the plurality of financial documents;
- (b) compare the numerical sequence of the document parameter associated with the requested stored electronic image to the predetermined parameter;
- (c) automatically access the first storage system when the numerical sequence of the document parameter associated with the requested stored electronic image is greater than the predetermined parameter; automatically access the second storage system when the numerical sequence of the document parameter associated with the requested stored electronic image is less than or equal to the predetermined parameter;
- (d) and automatically retrieve the requested stored electronic image from the first storage system or the second storage system once the first storage system or the second storage system has been accessed.

Ex. 1001, 11:54–12:40. Claims 2–9 depend from claim 1. *Id.* at 12:41–13:9. Independent claim 10 recites a method having limitations similar to that of claim 1. *Id.* at 13:10–14:19. Claims 11, 12, 14, and 15 depend, directly or indirectly, from claim 10. *Id.* at 14:20–25, 14:31–37.

*E. The Asserted Challenge to Patentability*

Petitioner asserts that claims 1–12, 14, and 15 are unpatentable on the following challenge:<sup>2</sup>

<b>Claim(s) Challenged</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>
1–12, 14, 15	103	Cullen <sup>3</sup> , Archwamety <sup>4</sup>

Pet. 12.

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<sup>2</sup> For purposes of this Decision, we assume the claims at issue have an effective filing date prior to March 16, 2013, the effective date of certain amendments in the Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), and we apply the pre-AIA versions of 35 U.S.C. §§ 102 and 103. *See* Ex. 1001, code (63); Pet. 12–13.

<sup>3</sup> US 6,592,629 B1, filed Nov. 13, 1997, issued July 15, 2003 (Ex. 1004).

<sup>4</sup> “Design and simulation of a totally digital image system for medical image applications,” Charnchai Archwamety, The University of Arizona, 1987, available at <http://hdl.handle.net/10150/184294> (Ex. 1005).

For purposes of institution, we consider the totality of evidence on the record as to whether a document is a prior art printed publication. *Hulu, LLC v. Sound View Innovations, LLC*, IPR2018-01039, Paper 29, 17–18 (PTAB Dec. 20, 2019) (precedential). Such evidence may include indicia on the face of the reference, such as printed dates and stamps, evidence of indexing on a national library system website, declaration from a content owner, and evidence that a copy has been accessed by the public at the relevant time. *Id.* at 17–19. “[A]t the institution stage, the petition must identify, with particularity, evidence sufficient to establish a reasonable likelihood that the reference was publicly accessible before the critical date of the challenged patent and therefore that there is a reasonable likelihood that it qualifies as a printed publication.” *Id.* at 13. We consider the evidence presented by Petitioner.

Petitioner asserts that Archwamety is a printed publication because (i) it is a dissertation bearing a 1987 date, (ii) bears an attestation by its author that it “is deposited in the University Library to be made available to borrowers,” (iii) was publicly accessible by March 1989, (iv) library records show it to have been cataloged, indexed, and shelved no later than March 1989, (v) library records show it to have been indexed under “Image processing, Digital techniques” and through searchable fields, and (vi) it has been cited by multiple articles in trade journals. Pet. 13–18 (citing *inter alia* Ex. 1016 (Declaration of Ingrid Hsieh-Yee, Ph.D.)). Patent Owner has not taken a position on this issue at this stage.

Based on the totality of evidence provided, we determine, for purposes of institution, that Petitioner has established a reasonable

likelihood that Archwamety is a prior art printed publication under 35 U.S.C. § 102.

Petitioner supports its Petition with a Declaration by Darrell D. E. Long, Ph.D. Ex. 1003.

### III. ANALYSIS

#### *A. Discretionary Denial Under 35 U.S.C. § 314(a)*

Institution of an *inter partes* review is discretionary. Section 314(a) of Title 35 of the United States Code provides that

[t]he Director may not authorize an inter partes review to be instituted unless the Director determines that the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.

The U.S. Supreme Court has explained that because § 314 includes no mandate to institute review, “the agency’s decision to deny a petition is a matter committed to the Patent Office’s discretion.” *Cuozzo Speed Techs., LLC v. Lee*, 579 U.S. 201, 273 (2016); *see also Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (explaining that under § 314(a), “the PTO is permitted, but never compelled, to institute an IPR proceeding”). The Director has delegated this authority under § 314(a) to the Board. 37 C.F.R. § 42.4(a) (“The Board institutes the trial on behalf of the Director.”).

In this proceeding, Patent Owner argues that we should exercise discretion to deny institution under § 314(a), because four district court trials on the patent being petitioned are scheduled to commence on February 2, 2023, nearly five months before the projected final written decision. Prelim. Resp. 4. Patent Owner contends that the factors identified in *Apple Inc. v.*

*Fintiv, Inc.*, IPR2020-00019, Paper 11 at 6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”), weigh heavily in favor of denying institution. *Id.* at 5.

In *Fintiv*, the Board ordered supplemental briefing on a nonexclusive list of factors for consideration in analyzing whether the circumstances of a parallel district court action are a basis for discretionary denial of trial institution under *NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 (PTAB Sept. 12, 2018) (precedential). *Fintiv*, Paper 11 at 5–16.

Those factors include the following:

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board’s exercise of discretion, including the merits.

*Id.* at 5–6. Here, we consider these factors to determine whether we should exercise discretion to deny institution. In evaluating the factors, we take a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review. *Id.* at 6.

*Factor 1: Whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted*

Patent Owner contends that this factor supports denial because Petitioner is not a party to any of the district court cases, and therefore

cannot seek a stay. Prelim. Resp. 5. Patent Owner further contends that the particular district court is unlikely to grant any requested stay absent special circumstances. *Id.* at 6. Petitioner argues that any evidence of a stay is speculative, and thus weighs neither for or against discretionary denial. Pet. 72.

On the record before us, we agree with Petitioner. We decline to speculate how the court might decide a motion to stay in the event it is filed, or whether parties not involved in this *inter partes* review proceeding might file a request to stay one or more of the district court proceedings. As the Board has explained, “[a] judge determines whether to grant a stay based on the facts of each specific case as presented in the briefs by the parties.” See *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 12 (PTAB May 13, 2020) (informative) (“*Fintiv IP*”). Accordingly, we find that this factor does not weigh for or against exercising our discretion to deny institution.

*Factor 2: Proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision*

Patent Owner contends that four of the district court proceedings share a common consolidated schedule having a trial set to commence on February 2, 2023, nearly five months prior to the Board’s projected June 30, 2023 final written decision deadline. Prelim. Resp. 7 (listing the “the Capital One Case, the BoA Case, the JPMorgan Case and the Wells Fargo Case”).

Petitioner argues that the trial date of the fifth district court proceeding is not until July 24, 2023—after the Board’s final written decision deadline. Reply 1. Petitioner further argues that the trial dates are speculative, particularly in view of the fact that four of nine district court cases involving the ’275 patent have been dismissed or had unopposed

summary judgment rendered. *See* Pet. 73; Reply 1 (“[O]nly five of [Patent Owner’s] nine parallel litigations remain.”).

Patent Owner counters that the existence of claim construction orders in the district court cases indicates that they will not be dismissed. Sur-reply 1–2. Patent Owner further argues that the trial dates are not speculative because the trial court has expressed a commitment to maintaining those dates once set. *Id.* at 2–3.

“We generally take courts’ trial schedules at face value absent some strong evidence to the contrary.” *See Fintiv II*, Paper 15 at 13. According to the Scheduling Order of the parallel litigation for defendants Bank of America, JPMorgan Chase Bank, Wells Fargo Bank, and Capital One, the district court trials are scheduled to begin on February 2, 2023, which is nearly five months before a Final Written Decision would be due in this proceeding. Ex. 2003, 2, 6. As noted by Petitioner, the *Citigroup* and *PNC Bank* district court cases have been dismissed. Pet. Reply 1. The presence of dismissals in these cases, and in the *TruWest* district court case, and the unopposed summary judgment in the *BancorpSouth* case, provide some evidence of uncertainty in the remaining four cases reaching trial prior to the final written decision. *Id.* Accordingly, the weight accorded to the current trial schedule is slightly lessened. Further, the Scheduling Order for the *USAA* district court case indicates that the *USAA* trial will not occur until July 24, 2023, which is after the due date for a final written decision in this proceeding. Ex. 1068. Viewed as a whole, we find that factor 2 weighs marginally in favor of exercising our discretion to deny institution.

*Factor 3: Investment in the parallel proceeding by the court and the parties*

Patent Owner points to a Claim Construction Order following briefing by the parties,<sup>5</sup> and to final infringement and invalidity contentions in the four cases following the consolidated scheduling order. Prelim. Resp. 8–9. Petitioner argues that there has been relatively little investment due to claim construction, because the Claim Construction Order reflected a stipulation between the parties to accord plain and ordinary meaning to all considered terms, with the court “neither holding a hearing nor defining any term.” Reply 3 (citing Ex. 1067). Patent Owner counters that claim construction appeared in the parties’ briefs, and that resolving claim construction without a hearing was in keeping with the standard procedure of the court. Sur-reply 3–4. Patent Owner further points to the claim construction order’s rejection of indefiniteness arguments as a further effort by the court. *Id.* at 4. Petitioner and Patent Owner also present opposing view of the significance of Patent Owner’s efforts in now-settled cases concerning the ’275 patent. Reply 2–3; Sur-reply 3.

We agree with Petitioner that the district court and the parties have not invested substantially in the merits of the invalidity positions. *See Fintiv II*, Paper 15 at 14 (denying institution; analyzing the district court’s and parties’ investment in the invalidity contentions). The district court’s brief Claim Construction Order involving *Bank of America, Wells Fargo, Capital One, JPMorgan Chase*, and *PNC Bank* briefly addresses four claim terms of the ’275 patent, ascribing plain and ordinary meaning to each term without

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<sup>5</sup> We refer herein to the “parties” in the district court cases. Petitioner is not a party to any of the district court cases, and therefore has not invested in those cases.

discussion or analysis, in a single page of the Order. Ex. 2007, 3. The court’s Claim Construction Order in the above-indicated parallel district court proceedings does not demonstrate the same high level of investment of time and resources as the detailed Markman Order in *Fintiv*. See *Sand Revolution II, LLC v. Continental Intermodal Group–Trucking LLC*, IPR2019-01393, Paper 24 at 10–11 (PTAB June 16, 2020) (informative) (contrasting the district court’s detailed 34-page claim construction order in *Fintiv* with the two-page order in *Sand Revolution II*). Also, we recognize that much work remains in the district court cases as it relates to invalidity: fact discovery is still ongoing, expert reports are not yet due, and substantive motion practice is yet to come. See Ex. 2003. Thus, although the parties and the district court have invested effort in the related district court litigations to date, further effort remains to be expended in the cases before trial. Such investment has been found to weigh “only marginally, if at all, in favor of exercising discretion to deny institution.” *Sand Revolution II*, Paper 24 at 11.

Moreover, one of the parallel district court cases (*USAA*) is at an earlier stage, with the parties having just served preliminary invalidity contentions and exchanged proposed claim constructions, the Markman hearing scheduled for July 25, 2022, final invalidity contentions yet to be served, and discovery and dispositive motions yet to occur. Ex. 1068, 2–5. We determine that such investment weighs somewhat against exercising our discretion to deny institution.

Therefore, weighing the facts in this particular case, including the time invested by the parties and the district court in the parallel litigations,

we find that factor 3 weighs marginally against exercising our discretion to deny institution.

*Factor 4: Overlap between issues raised in the petition and in the parallel proceeding*

Petitioner asserts that there is little overlap between the issues and claims in this proceeding and the parallel litigations. Pet. 75. Petitioner points to numerous issues that are not common between the Petition and the parallel litigations. *Id.* at 74–75. Petitioner further asserts that, because it is not a party to any of the parallel litigations, it is unaware of which claims and which art are at issue, except for the claim construction briefing in certain cases indicating that only claims 1, 5, and 8 of the '275 patent have been asserted. *Id.* at 75. Petitioner states that three additional patents are being asserted in the parallel litigations in addition to the '275 patent. *Id.*

Patent Owner contends that there is substantial overlap to cause this factor to weigh heavily in favor of denying institution. Prelim. Resp. 9–10. Patent Owner contends that the parallel proceedings involve final invalidity contentions asserting that claims 1, 5, and 8 would have been obvious in view of Cullen and Archwamety, the same art and arguments applied in the Petition challenging claims 1–12, 14, and 15. *Id.* Patent Owner further contends that independent claim 10 substantially tracks claim 1. *Id.* at 10. Patent Owner contends that the challenging of additional dependent claims does not favor institution. *Id.* (citing *Fintiv*, IPR2020-00019, Paper 11 at 12–13 (“if a petition involves the same prior art challenges but challenges claims in addition to those that are challenged in the district court, it may still be inefficient to proceed because the district court may resolve validity of enough overlapping claims to resolve key issues in the petition”)) (emphasis omitted)).

In its Reply, Petitioner contests Patent Owner’s characterization, pointing to the invalidity contentions as including 57 references with no particular indication that Cullen and Archwamety are specifically being combined in any manner to render obvious the three asserted claims. Reply 4 (citing Exs. 2004–2006; Ex. 1066, 8). Petitioner asserts that the invalidity contentions place Cullen and Archwamety on the same footing as thousands of other potential combinations. *Id.* at 5. In response, Patent Owner emphasizes that both Cullen and Archwamety are mentioned with respect to each claim element. Sur-reply 5 (citing Ex. 2004, 4–5).

Although the district court litigations address additional issues, the patentability issues presented here are nevertheless a subset of the issues in the district court cases. Weighing the facts in this particular case, we find that factor 4 weighs somewhat in favor of exercising our discretion to deny institution.

*Factor 5: Whether the petitioner and the defendant in the parallel proceeding are the same party*

It is undisputed that Petitioner is not a defendant in the parallel litigation. *See* Prelim. Resp. 11.

As the Board explained in *Fintiv*, “[i]f a petitioner is unrelated to a defendant in an earlier court proceeding, the Board has weighed this fact *against exercising discretion* to deny institution under *NHK*.” *Fintiv*, Paper 11 at 13–14 (emphasis added). Therefore, we find that factor 5 weighs against exercising our discretion to deny institution.

*Factor 6: Other circumstances that impact the Board’s exercise of discretion, including the merits*

The final *Fintiv* factor is a catch-all that considers any other relevant circumstances. The decision whether to exercise discretion to deny

institution is based on “a balanced assessment of all relevant circumstances in the case, including the merits.” *Fintiv*, Paper 11 at 14.

For example, if the merits of a ground raised in the petition seem particularly strong on the preliminary record, . . . the institution of a trial may serve the interest of overall system efficiency and integrity because it allows the proceeding to continue in the event that the parallel proceeding settles or fails to resolve the patentability question presented in the PTAB proceeding.

*Id.* at 14–15.

A full merits analysis is not necessary as part of deciding whether to exercise discretion not to institute, but rather the parties may point out, as part of the factor-based analysis, particular “strengths or weaknesses” to aid the Board in deciding whether the merits tip the balance one way or another.

*Id.* at 15–16.

We have reviewed Petitioner’s unpatentability arguments and supporting evidence. As discussed below, on this record, we determine that Petitioner has demonstrated sufficiently for purposes of this Decision a reasonable likelihood that the challenged claims of the ’275 patent are unpatentable. Based on this preliminary record, however, we are unable to discern whether the merits are particularly strong here.

Weighing the facts in this particular case, including the strength of the merits of the grounds in the Petition, and the existence of the *USAA* parallel district court proceeding, we find that factor 6 does not weigh for or against exercising our discretion to deny institution.

*Conclusion on Discretionary Denial Under § 314(a)*

As noted in *Fintiv*, we consider the above factors when taking “a holistic view of whether efficiency and integrity of the system are best

served by denying or instituting review.” *Fintiv*, Paper 11 at 6. Under such a holistic view, we determine that the above-discussed factors do not support exercising our discretion to deny institution. Accordingly, under the particular circumstances of this case, we are not persuaded that the interests of efficiency and integrity of the system would be best served by invoking our discretion under § 314(a) to deny institution of a potentially meritorious Petition.

### *B. Claim Construction*

In an *inter partes* review, we construe a patent claim “using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b).” 37 C.F.R. § 42.100(b) (2021). Under this standard, the words of a claim generally are given their “ordinary and customary meaning,” which is the meaning the term would have to a person of ordinary skill at the time of the invention, in the context of the entire patent including the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc).

Petitioner asserts that the claims should be given their ordinary and customary meaning. Pet. 5. Construction is needed only for those terms “that are in controversy, and only to the extent necessary to resolve the controversy.” *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Matal*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)). No terms are in controversy at this stage, and we determine that no express constructions are necessary to determine whether to institute an *inter partes* review.

*C. Principles of Law*

A patent claim is 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 the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence of non-obviousness.<sup>6</sup> *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

In an *inter partes* review, the petitioner must show with particularity why each challenged claim is unpatentable. *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016); 37 C.F.R. § 42.104(b). The burden of persuasion never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

We analyze the challenges presented in the Petition in accordance with the above-stated principles.

*D. Level of Ordinary Skill in the Art*

In determining the level of ordinary skill in the art, various factors may be considered, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active

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<sup>6</sup> Neither party presents evidence or arguments regarding objective evidence of non-obviousness at this stage.

workers in the field.” *In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (quotation marks omitted). Further, the prior art itself can reflect the appropriate level of ordinary skill in the art. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

Here, Petitioner asserts,

[a person of ordinary skill in the art] in April of 1999 was familiar with the electronic storage and retrieval of documents including the interfaces used to access documents in on-site and off-site storage. A [person of ordinary skill in the art] would have had a Bachelor’s degree in computer science or similar degree and four years of experience; or a Master’s degree and two years of professional experience. More experience can supplement for less education, and vice versa.

Pet. 5–6 (citing Ex. 1003 ¶¶ 45–48).

Patent Owner does not address the level of ordinary skill. For purposes of this Decision, we apply Petitioner’s characterization because it is supported by Dr. Long’s testimony and is consistent with the cited prior art.

*E. Alleged Obviousness over Cullen and Archwamety*

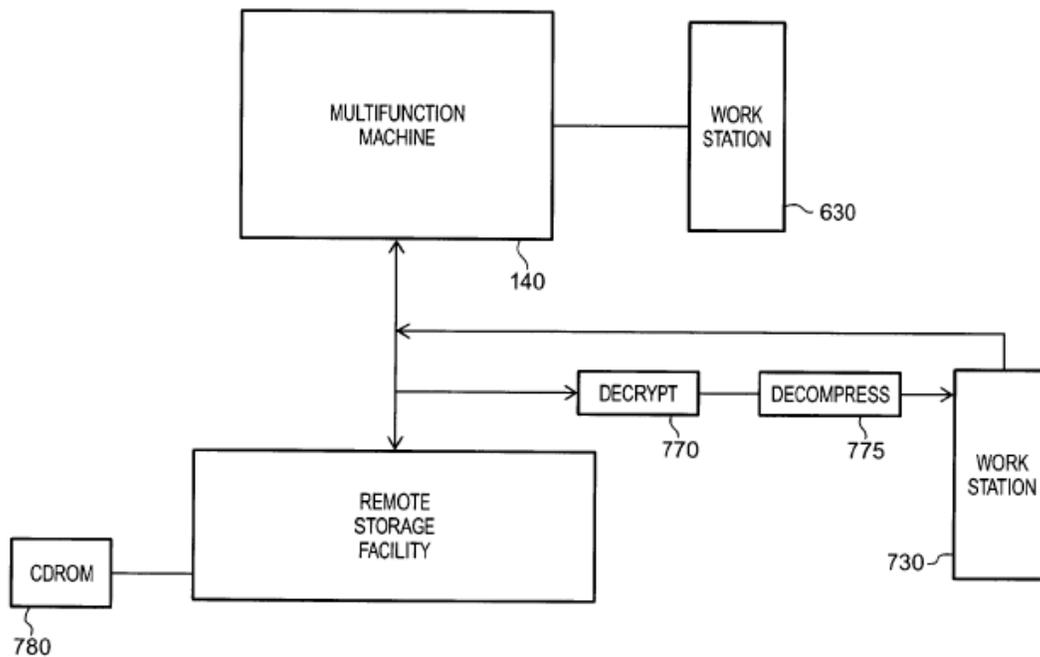
Petitioner asserts that claims 1–12, 14, and 15 would have been obvious under § 103(a) over Cullen and Archwamety. Pet. 30–71.

Upon consideration of Petitioner’s explanations and supporting evidence in this current record, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing in showing that claims 1–12, 14, and 15 are unpatentable under § 103(a) as obvious over Cullen and Archwamety.

*1. Overview of Cullen (Ex. 1004)*

Cullen is directed to a document management system that provides remote storage and retrieval facilities for archiving electronic documents.

Ex. 1004, 1:11–15. Documents may be “any electronic form of written, printed, or similarly expressed information.” *Id.* at 3:55–57. Documents may be stored or processed by a multifunction machine capable of features such as copying, faxing, or printing. *Id.* at 2:31–33. Document images are copied to a remote storage facility to provide additional storage for the multifunction machine. *Id.* at 2:33–37. Customers may store and retrieve digital documents from the remote storage facility. *Id.* at 2:37–39. An embodiment of the document management system is shown in Figure 7, reproduced below:



**FIG. 7**

Figure 7 depicts a system containing a work station, a multifunction machine and a remote storage facility, the remote storage facility connected to a CD-ROM, and the multifunction machine connected to a second work station.

2. *Overview of Archwamety (Ex. 1005)*

Archwamety is directed to storing, viewing, processing, retrieving, and generating electronic image files using a digital network. Ex. 1005, 1. The network is arranged in a multiple star topology, with a data base archive at the center of the star, and components such as data generation equipment and review console workstations on the radial arms of the star. *Id.* at 33. Archwamety's data base archive comprises three levels: (i) high-speed magnetic disk storage for images up to seven days, (ii) moderate-speed online optical disk storage having greater capacity for storing images from eight days to one month, and (iii) low-speed long term optical disk storage for storing images from one month to three years. *Id.* at 57.

3. *Claim 1*

a) *Petitioner's assertions*

Petitioner asserts that the combination of Cullen and Archwamety teaches or suggests all of the limitations recited in claim 1. Pet. 19–58. At this time, Patent Owner has not provided any arguments regarding the merits of Petitioner's obviousness arguments.

*(i) A system for selectively storing and retrieving electronic images of a plurality of financial documents, each electronic image being associated with a document parameter that includes a numerical sequence that is representative of a record date of the corresponding financial document, the system comprising:*

Petitioner points to Cullen's teaching of a system for storing and retrieving images of documents. Pet. 31 (citing Ex. 1004, 1:12-14, Fig. 6; Ex. 1003 ¶ 30). Petitioner further points to Cullen's teaching that the documents may be "any type of written, printed, or similarly expressed information." *Id.* (citing Ex. 1004, 3:55–57; Ex. 1003 ¶ 31).

With respect to the documents being “financial,” Petitioner asserts that a person of ordinary skill would have found this obvious. *Id.* at 31–33. Petitioner asserts that a person of ordinary skill would have “readily understood” Cullen’s system to apply to financial documents in view of the knowledge in the art, represented by five references discussed by Petitioner’s declarant. *Id.* at 31 (citing Ex. 1003 ¶ 131). One of those references, Paltenghe (Ex. 1013), describes a data management system storing and retrieving document record types including medical records and financial records. *Id.* (citing Ex. 1013). Petitioner asserts that a person of ordinary skill in the art would have been motivated to apply Cullen’s system to financial documents to bring Cullen’s efficiencies to financial document systems, or because doing so would involve no more than using a known technique to improve storage of similar (financial) documents, or because doing so would be an example of work known in one field of endeavor prompting use in the context of financial records based on similar design incentives. *Id.* at 32 (citing Ex. 1003 ¶ 132). Petitioner asserts that a person having ordinary skill in the art would have had a reasonable expectation of success because storage and retrieval systems were well known in the financial context, involved predictable results, and there were no technological challenges for such use. *Id.* (citing Ex. 1003 ¶ 132).

Petitioner further points to Archwamety’s teaching of associating medical documents with the date of examination, which Petitioner characterizes as a numerical sequence of a document parameter that is representative of a record date of the corresponding document. *Id.* at 33–34 (citing Ex. 1005 Figs 3, 6; Ex. 1003 ¶ 134). Petitioner asserts that Archwamety’s image age teaches the claimed record date because the age of

the image indicates the date the record was taken; i.e., the date of the examination. *Id.* Petitioner points to Archwamety’s three storage systems, in which the storage system for a particular image is selected based upon the image age. *Id.* at 34. Petitioner asserts that age is a numerical sequence because (i) it is a number that increments sequentially as time passes, (ii), Archwamety describes a variable “day.length” to represent age, (iii) a person of ordinary skill would understand age to be stored as binary code that represents a numerical sequence, and (iv) Archwamety calculates age by subtracting the record date from the current date. *Id.* at 34–36 (citing Ex. 1005, Fig. 3.14, 97, 191, 193, 199; Ex. 1003 ¶ 138). Petitioner further points to Archwamety’s teaching of including the image examination date on each image file, and of storing and retrieving each image based on age. *Id.* at 36 (citing Ex. 1005, 98, 107, 108, 165, Fig. 3.6; Ex. 1003 ¶ 139).

Petitioner asserts that it would have been obvious to one having ordinary skill in the art to modify Cullen with the above-described teaching of Archwamety to associate the age of the record with the image, for the purpose of establishing a temporal context most useful for medical images or financial documents, and to modify Cullen with Archwamety’s date-based storage system to provide efficiencies in storage. *Id.* at 36–37 (citing Ex. 1003 ¶ 140).

*(ii) a first storage system including a first fixed medium, the first storage system being associated with a first entity and configured to:*

*(a) store at least some of the electronic images for the plurality of financial documents*

Petitioner points to Cullen’s remote storage facility (RSF) 360 (first storage system) including storage medium 365 (first fixed medium) associated with the facility’s operator (first entity). Pet. 37–38 (citing Ex.

1004, 2:37–39, 5:8–25, 6:23–28, 7:62–66; Ex. 1003 ¶¶ 141–143). Petitioner makes an alternative argument for the claimed first entity, in that a person having ordinary skill in the art would have understood that it would have been obvious, and within the ordinary skill of that person, to use a third-party storage provider in Cullen to gain the recognized advantages of outsourcing. *Id.* at 38–39.

*(b) wherein the document parameter for each of the at least some of the electronic images that are configured to be stored in the first storage system are greater than a predetermined parameter, wherein the predetermined parameter is a date or time period;*

Petitioner points to Cullen’s “least recently used (LRU) algorithm” or “other algorithms” to determine which documents to be stored locally rather than at the RSF. Pet. 39–40 (citing Ex. 1004, 8:12–15; Ex. 1003 ¶ 147). Petitioner further points to Archwamety’s teaching of comparing the age of particular documents (document parameter) to a threshold age (predetermined parameter as a time period), in selecting the appropriate target of a hierarchical storage system. *Id.* at 40–43 (citing Ex. 1005, 79, 165, 177–178, 199–201, Fig. 3.6; Ex. 1003 ¶ 148). As characterized by Petitioner’s declarant, documents older than 7 days would migrate from limited local space to a more cost-effective remote storage. *Id.* at 41–43 (citing Ex. 1003 ¶¶ 150, 152). Petitioner asserts that a person having ordinary skill in the art would have been motivated to use Archwamety’s age-based algorithm with Cullen’s system to migrate older documents to remote storage, because Archwamety described an algorithm that was “predictably suitable for a hierarchical system like Cullen.” *Id.* at 40 (citing Ex. 1003 ¶ 147). Petitioner asserts that such a combination would have been recognized as advantageous to best balance the need for fast transfer rates for recent records (in local storage) with economically storing older records.

*Id.* at 43–44 (citing Ex. 1004, 7:62–66; Ex. 1005, 23, 79, 102; Ex. 1007, 2:24–47; Ex. 1008, 2, 12–13 C3; Ex. 1015, 12:65–13:5, 15:8–15).

*(iii) a second storage system including a second fixed medium, wherein the second storage system is located remotely from the first storage system, the second storage system being associated with a second entity and configured to:*

*(a) store at least some of the electronic images for the plurality of financial documents*

Petitioner points to Cullen’s multifunction machine (second storage system) including a storage medium (second fixed medium) located remotely from the RSF (first storage system) for storing data not stored in the RSF (at least some of the electronic images). Pet. 44 (citing Ex. 1004, 5:8–25; Ex. 1003 ¶ 155). Cullen’s multifunction machine is associated with a customer (second entity) served by the RSF. *Id.* at 45 (citing Ex. 1004, 2:37–39, 3:48–55, 6:28–33, Fig. 1; Ex. 1003 ¶¶ 156–157).

*(b) wherein the document parameter for each of the at least some of the electronic images configured to be stored in the second storage system are less than or equal to the predetermined parameter;*

Petitioner points to the teachings of Cullen and Archwamety as described for limitation ii(b). Pet. 45.

*(iv) an electronic processor which has electronic access to the first and second storage systems and is also interlinked to the first storage system and the second storage system, wherein the electronic processor is interlinked to the first storage system and the second storage system through an interlinked interface, wherein the electronic processor is configured to:*

*(a) receive a request for one of the stored electronic images of the plurality of financial documents;*

Petitioner points to Cullen’s workstation (electronic processor) having software to request documents and access via an index table (interlinked

interface) the RSF and multifunction machine (first and second storage systems). Pet. 46–50 (citing Ex. 1004, Fig. 8, 7:49–56, 8:51–55; Ex. 1003 ¶¶ 159–167).

*(b) compare the numerical sequence of the document parameter associated with the requested stored electronic image to the predetermined parameter;*

*(c) automatically access the first storage system when the numerical sequence of the document parameter associated with the requested stored electronic image is greater than the predetermined parameter; automatically access the second storage system when the numerical sequence of the document parameter associated with the requested stored electronic image is less than or equal to the predetermined parameter;*

Petitioner points to Archwamety’s determination of a document age from the current date and the exam date, and asserts that the document age is a document parameter expressed as a numerical sequence. Pet. 51–52 (citing Ex. 1005, Fig. 3.14, 97; Ex. 1003 ¶ 169). Petitioner asserts that when considered together, Cullen and Archwamety teach comparing the numerical sequence of the document parameter (e.g., the document age) with a predetermined parameter to determine which of two storage systems is targeted for retrieval and storage. *Id.* at 52–53 (citing Ex. 1004, 8:55–57, Fig. 8; Ex. 1005, 97, 143; Ex. 1003 ¶¶ 169–170). Petitioner points to Cullen as automatically accessing the appropriate storage system following that comparison. *Id.* at 54 (citing Ex. 1004, 8:58–9:4, Fig. 8; Ex. 1003 ¶¶ 171–172). Petitioner points to Cullen’s statement that “‘*other algorithms* may be implemented to determine which images are kept’ in remote storage” as providing a suggestion to use another algorithm, such as that taught by Archwamety. *Id.* at 25–26 (citing Ex. 1004, 8:4–15; Ex. 1003 ¶ 122).

*(d) and automatically retrieve the requested stored electronic*

*image from the first storage system or the second storage system once the first storage system or the second storage system has been accessed.*

Petitioner points to Cullen's automatic retrieval of the requested image following identification of the location of the requested document on the respective storage system. Pet. 55–56 (citing Ex. 1004, 8:58–9:4, Fig. 8; Ex. 1003 ¶ 173; Ex. 1005, 97 (describing retrieval as the reverse of storage)).

*b) Conclusion*

Having reviewed Petitioner's arguments and supporting evidence in this present record, we determine that Petitioner has established adequately for purposes of this Decision that the combination of Cullen and Archwamety teaches or suggests the limitations of claim 1 and that a person of ordinary skill in the art would have had reason to combine the references' teachings with a reasonable expectation of success. Accordingly, we determine that Petitioner has demonstrated a reasonable likelihood that claim 1 would have been obvious over the combination of Cullen and Archwamety.

Claim 10 is an independent claim having similar limitations to claim 1, and claims 2–9, 11, 12, 14, and 15 depend from their respective independent claims. Petitioner has provided additional explanation for the manner by which the combination of Cullen and Archwamety is asserted to teach each limitation not found in claim 1. Pet. 58–71. With respect to claim 10, Petitioner argues obviousness for the reasons discussed for claim 1. *Id.* at 58–67 (citing Pet. 30–58). With respect to claims 2 and 11, Petitioner points to Cullen's different disk types on different mediums; i.e., magnetic disk on the first fixed medium and optical disk on the second fixed

medium. *Id.* at 67 (citing Ex. 1004, 5:8–25, 6:23–28; Ex. 1003 ¶ 196). With respect to claims 3–6, Petitioner points to Cullen’s storage on magnetic or optical disk as teaching electronic storage in a fixed, physical storage medium, and Cullen’s storage on random access memory (“RAM”) or read-only memory (“ROM”) as teaching electronic storage on an electronic medium. *Id.* at 68–69 (citing Ex. 1004, 3:19–25, 5:5–15, 6:23–28, Fig. 2; Ex. 1003 ¶¶ 197–198). With respect to claims 7 and 15, Petitioner points to Cullen’s teaching that the first and second mediums may be the same type. *Id.* at 69 (citing Ex. 1004, 3:19–25, 5:5–15, 6:25–27, Fig. 2; Ex. 1003 ¶ 199). With respect to claims 8, 12, and 14, Petitioner points to Cullen’s sending of the retrieved image to the workstation for inspection or viewing; i.e., reproduction. *Id.* at 70 (citing Ex. 1004, 8:65–67, 9:23–26; Ex. 1003 ¶ 200). With respect to claim 9, Petitioner points to Cullen’s teaching that either the RSF or the multifunction machine is accessed; i.e., in the alternative. *Id.* at 71 (citing Ex. 1004, 8:48–9:4, Fig. 8; Ex. 1003 ¶ 201).

At this time, Patent Owner has not provided any arguments regarding the merits of Petitioner’s obviousness arguments. Nonetheless, the burden remains on Petitioner to demonstrate unpatentability. *See Dynamic Drinkware*, 800 F.3d at 1378.

Having reviewed Petitioner’s arguments and supporting evidence in this present record, including the arguments summarized above for claim 1, we determine that Petitioner has established adequately for purposes of this Decision that the combination of Cullen and Archwamety teaches or suggests the limitations of claims 2–12, 14, and 15, and that a person of ordinary skill in the art would have had reason to combine the references’ teachings with a reasonable expectation of success. Accordingly, we

determine that Petitioner has demonstrated a reasonable likelihood that these claims also would have been obvious over the combination of Cullen and Archwamety.

4. *Preliminary Conclusion on Obviousness over Cullen and Archwamety*

Based on the evidence in the present record, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing in showing that claims 1–12, 14, and 15 are unpatentable under § 103 as obvious over the combination of Cullen and Archwamety.

IV. CONCLUSION

For the reasons discussed above, we conclude Petitioner has shown a reasonable likelihood of prevailing with respect to at least one claim of the '275 patent. We have evaluated all of the parties' submissions and determine that the record supports institution. Accordingly, we institute an *inter partes* review of all challenged claims under all grounds set forth in the Petition.

Our determination at this stage of the proceeding is based on the evidentiary record currently before us. This decision to institute trial is not a final decision as to patentability of any claim for which *inter partes* review has been instituted. Our final decision will be based on the full record developed during trial.

V. ORDER

For the foregoing reasons, it is

ORDERED that pursuant to 35 U.S.C. § 314(a), an *inter partes* review is hereby instituted for the following asserted ground:

<b>Claim(s) Challenged</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>
1–12, 14, 15	103	Cullen, Archwamety

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial; the trial will commence on the entry date of this Decision.

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PETITIONER:

John M. Baird  
Patrick Muldoon  
Patrick D. McPherson  
DUANE MORRIS LLP  
Jmbaird@duanemorris.com  
pcmuldoon@duanemorris.com  
pdmcpherson@duanemorris.com

Roshan S. Mansinghani  
Jung S. Hahm  
UNIFIED PATENTS  
roshan@unifiedpatents.com  
jung@unifiedpatents.com

PATENT OWNER:

Rene A. Vazquez  
rvazquez@sinergialaw.com

M. Scott Fuller  
sfuller@ghiplaw.com

Peter J. Corcoran  
peter@corcoranip.com