

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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DOLBY LABORATORIES, INC.,  
Petitioner,

v.

INTERTRUST TECHNOLOGIES CORPORATION,  
Patent Owner.

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IPR2020-00660  
Patent 6,785,815 B2

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Before MICHAEL R. ZECHER, KIMBERLY McGRAW, and  
CHRISTOPHER L. OGDEN, *Administrative Patent Judges*.

McGRAW, *Administrative Patent Judge*.

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

## I. INTRODUCTION

Petitioner, Dolby Laboratories, Inc., filed a Petition requesting *inter partes* review of claims 42 and 43 of U.S. Patent No. 6,785,815 B2 (Ex. 1001, “the ’815 patent”). Paper 2 (“Pet.”). Patent Owner, Intertrust Technologies Corporation, filed a Preliminary Response. Paper 7 (“Prelim. Resp.”). Petitioner then filed an authorized Reply (Paper 9, “Reply”) and Patent Owner filed an authorized Sur-reply (Paper 10, “PO Sur-reply”). Applying the standard set forth in 35 U.S.C. § 314(a), which authorizes institution of an *inter partes* review when “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,” we institute an *inter partes* review of all claims of the ’815 patent on all grounds asserted in the Petition.

### A. *Real Parties-in-Interest*

Petitioner identifies Dolby Laboratories, Inc., a Delaware corporation, and Dolby Laboratories, Inc., a California corporation, as real parties-in-interest. Pet. 5. In addition, Petitioner further identifies (1) Cinemark Holdings, Inc., (2) AMC Entertainment Holdings, Inc., and (3) Regal Entertainment Group (hereinafter “Cinemas” or the “Texas Defendants”), as real parties-in-interest “out of an abundance of caution, to avoid any dispute about such status based on any alleged business relationship between the Cinemas and Petitioner.” *Id.*

Patent Owner identifies itself as the real party-in-interest. Paper 3 (“Patent Owner’s Mandatory Notices”), 1.

*B. Related Matters*

The parties identify four related district court litigations involving the '815 patent: (1) *Dolby Laboratories, Inc. v. Intertrust Corporation*, No. 3:19-cv-03371 (N.D. Cal.); (2) *Intertrust Technologies Corporation v. AMC Entertainment Holdings, Inc.*, No. 2:19-cv-00265 (E.D. Tex.); (3) *Intertrust Technologies Corporation v. Cinemark Holdings, Inc.*, No. 2:19-cv-00266 (E.D. Tex.); and (4) *Intertrust Technologies Corporation v. Regal Entertainment Group*, No. 2:19-cv-00267 (E.D. Tex.). *See* Pet. 5–6; Prelim. Resp. 14–15.

*C. The '815 Patent*

The '815 patent, titled “Methods and Systems for Encoding and Protecting Data Using Digital Signature and Watermarking Techniques” is directed to systems and methods for protecting data from unauthorized use or modification. Ex. 1001, code (54), 1:23–25. The application giving rise to the '815 patent was filed on June 7, 2000, and claims priority to U.S. Provisional App. No. 60/138,171 (Ex. 1004), filed on June 8, 1999. *Id.* at codes (21), (22), (60).

Figure 14 of the '815 patent, reproduced below, illustrates an encoding scheme for use in connection with a content management mechanism. *Id.* at 6:1–3.

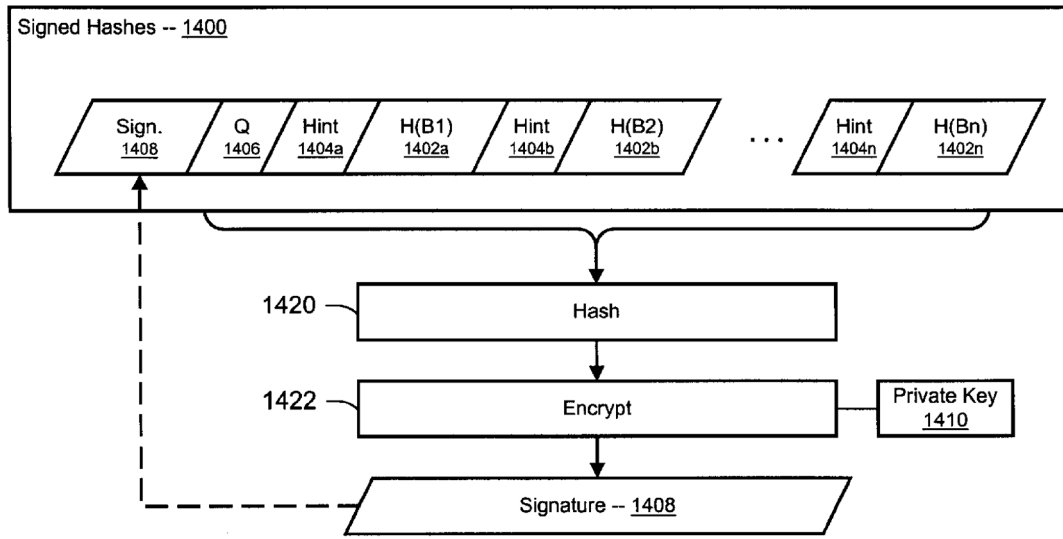


Figure 14 above, depicts signed hash file 1400 that is used to verify the authenticity of a content file. Signed hash file 1400 can include a plurality of hash values 1402, that are obtained by hashing portions of the original content file, as well as a plurality of hints 1404 that can be used to find potential matches for the hash values. *Id.* at 23:42–48. The hash values 1402, along with hints 1404 and quality indicators 1406, are further hashed to yield hash 1420, which is then encrypted 1422, using key 1410. *Id.* at 23:54–59. The signed hash file contains the digital signature 1408 of hashes 1402, hints 1404, and quality indicator 406. *Id.* at 23:52–54.

Figure 13, reproduced below, illustrates the operation of a content management mechanism of an exemplary embodiment. *Id.* at 5:65–67.

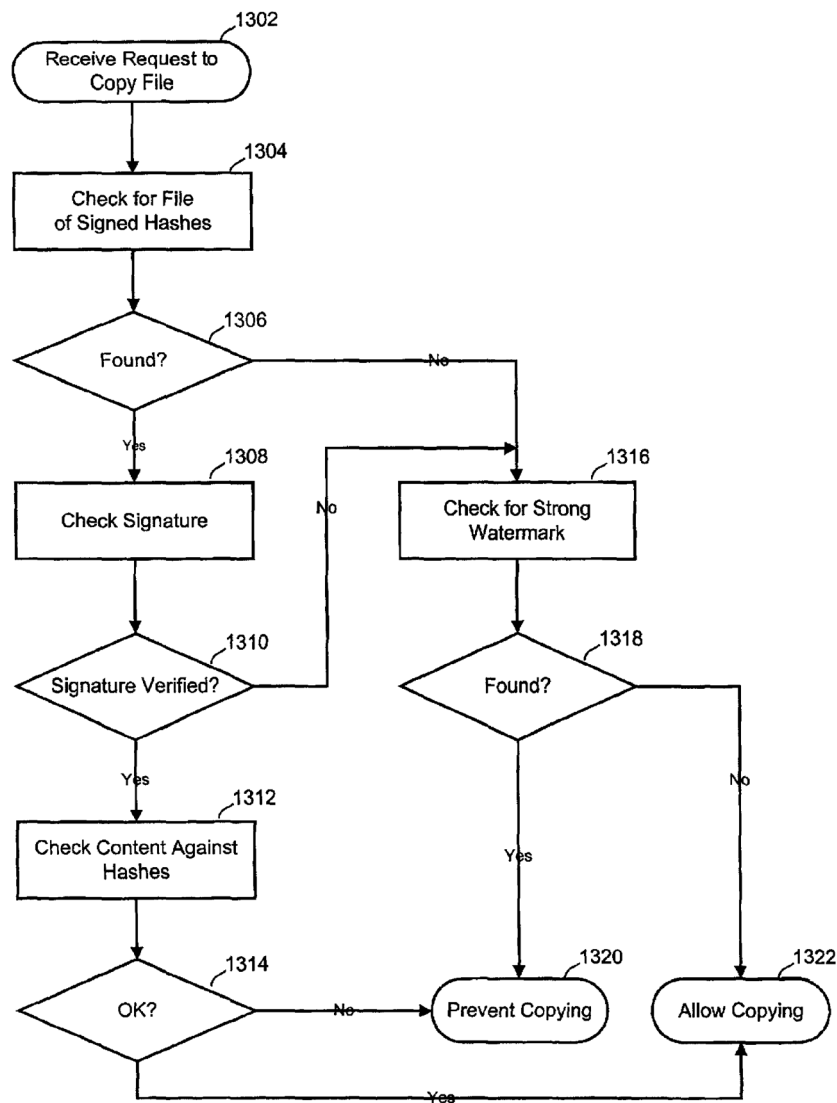


FIG. 13

Figure 13, above, depicts a process by which a signed hash file is permitted to be copied or not in response to request to copy a file. When a customer attempts to copy a file (1302), the appropriate set of signed hashes are retrieved (1304, 306). *Id.* at 23:4–7. The authenticity of the hashes is verified, such as by decrypting the signature with the issuer’s public key and comparing the decrypted result to a hash of the signed hashes (1308). *Id.* at 23:7–10. If the hashes are authentic, they are used to verify the authenticity

of the content file, by hashing the appropriate portions of the content file and comparing those hashes with the signed hashes (1312). *Id.* at 23:10–14. If the content is authentic, copying is allowed (1322); otherwise, copying is prevented (1320). *Id.* at 23:14–17.

*D. Illustrative Claim*

Petitioner challenges claims 42 and 43 in this proceeding. Claim 42, the only independent claim challenged in this proceeding, is reproduced below with formatting and bracketing added for clarity.

42. A method for managing at least one use of a file of electronic data, the method including:
- [a] receiving a request to use the file in a predefined manner;
  - [b] retrieving at least one digital signature and at least one check value associated with the file;
  - [c] verifying the authenticity of the at least one check value using the digital signature;
  - [d] verifying the authenticity of at least a portion of the file using the at least one check value; and
- [e] granting the request to use the file in the predefined manner.*

Ex. 1001, 32:13–25.

*E. Prior Art and Asserted Grounds*

Relying on the declaration testimony of Dr. Vijay H. Madiseti (Ex. 1002), Petitioner asserts that claims 42 and 43 would have been unpatentable based on the following grounds:

Claim Challenged	35 U.S.C. §	Reference(s)/Basis
42, 43	103(a) <sup>1</sup>	Hanna, <sup>2</sup> Stefik <sup>3</sup>
42, 43	103(a)	Gennaro <sup>4</sup>

## II. 35 U.S.C. § 314(a)

Under 35 U.S.C. § 314(a), the Director has discretion to deny institution. In determining whether to exercise that discretion on behalf of the Director, we are guided by the Board’s precedential decision in *NHK Spring Co. v. Intrix-Plex Techs., Inc.*, IPR2018-00752, Paper 8 at 20 (PTAB Sept. 12, 2018) (precedential).

In *NHK*, the Board found that the “advanced state of the district court proceeding” was a “factor that weighs in favor of denying” the petition under § 314(a). *Id.*, Paper 8 at 20. The Board determined that “[i]nstitution of an *inter partes* review under these circumstances would not be consistent with ‘an objective of the AIA . . . to provide an effective and efficient alternative to district court litigation.’” *Id.* (citing *General Plastic Indus. Co. v. Canon Kabushiki Kaisha*, No. IPR2016-01357, Paper 19 at 16–17 (PTAB Sept. 6, 2017) (precedential in relevant part)).

“[T]he Board’s cases addressing earlier trial dates as a basis for denial under *NHK* have sought to balance considerations such as system efficiency, fairness, and patent quality.” *Apple Inc. v. Fintiv Inc.*, IPR2020-00019,

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<sup>1</sup> The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103, effective March 16, 2013. Because the application from which the ’815 patent issued was filed before this date, the pre-AIA version of § 103 applies.

<sup>2</sup> WO 99/40702, published Aug. 12, 1999 (Ex. 1006, “Hanna”).

<sup>3</sup> US 5,629,980, issued May 13, 1997 (Ex. 1007, “Stefik”).

<sup>4</sup> US 6,009,176, issued Dec. 28, 1999 (Ex. 1008, “Gennaro”).

Paper 11 at 5 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv I*”) (collecting cases). *Fintiv I* sets forth six non-exclusive factors (the “*Fintiv* factors”) for determining “whether efficiency, fairness, and the merits support the exercise of authority to deny institution in view of an earlier trial date in the parallel proceeding.” *Id.* at 6. These factors consider:

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.

We discuss the parties’ arguments in the context of considering the above factors. 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. *Fintiv I* at 6.

#### *A. Factual Background*

On June 13, 2019, Petitioner filed a declaratory judgement of non-infringement action against Patent Owner in the Northern District of California (the “California Action”). *Dolby Laboratories, Inc. v. Intertrust Corporation*, No. 3:19-cv-03371 (N.D. Cal.). Pet. 6; Prelim. Resp. 14–15.

On August 7, 2019, Patent Owner filed three infringement actions (collectively the “Texas Actions”) against three different parties (i.e.,



Cinemas or the “Texas Defendants”) in the Eastern District of Texas: *Intertrust Technologies Corporation v. AMC Entertainment Holdings, Inc.*, No. 2:19-cv-00265 (E.D. Tex.); *Intertrust Technologies Corporation v. Cinemark Holdings, Inc.*, No. 2:19-cv-00266 (E.D. Tex.); *Intertrust Technologies Corporation v. Regal Entertainment Group*, No. 2:19-cv-00267 (E.D. Tex.). Pet. 5–6; Prelim. Resp. 15.

Patent Owner served its infringement contentions in the Texas Actions on February 27, 2020 and Petitioner filed the present Petition on March 26, 2020. Reply 5; Pet. 61; Ex. 2018 (Intertrust’s Infringement Contentions for the ’815 patent (E.D. Tex.)).

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

On the present record, neither party has produced evidence that a request for a stay has been made or considered in either the Northern District of California or the Eastern District of Texas. Petitioner states that it intends to seek a stay in the California Action and further contends the presiding judge in the California Action has consistently stayed litigation of claims under review by the Board, while denying pre-institution motions as premature. *See* Reply 3–4.

“A judge determines whether to grant a stay based on the facts of each specific case as presented in the briefs by the parties.” *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 12 (PTAB May 13, 2020) (informative) (“*Fintiv II*”). We do not speculate on how the presiding judge in the California Action would rule on a motion, if Petitioner were in fact to file such a motion, based on actions taken in different cases with different facts or extrajudicial interviews.

As a stay has not yet been requested nor considered in either the California Action or the Texas Actions, this factor does not weigh either in favor of or against exercising our discretion to deny institution pursuant to § 314(a).

- C. *Factor 2: proximity of the court's trial date to the Board's projected statutory deadline for a final written decision, and*  
*Factor 5: whether Petitioner and the defendant in the parallel proceeding are the same party*

Because the parallel litigations involve multiple parties with different trial dates, the analysis of Factors 2 and 5 are interrelated. Accordingly, we address them together.

As noted above, jury selection in the Texas Actions is currently scheduled to begin March 1, 2021, which is approximately seven months before the Final Written Decision in this proceeding is likely to issue. *See* Paper 13, 1. Although no trial date has been set for the California Action, the parties' Joint Case Management Conference Statement (Ex. 2009) proposes that trial commence on or before October 2021. *See* Ex. 2009, 14; Prelim. Resp. 20; PO Sur-reply 3–4.

Patent Owner asserts both Factors 2 and 5 weigh in favor of discretionary denial. Prelim. Resp. 19–23, 29–32; PO Sur-reply 3–5, 8–9. Patent Owner contends the March 1, 2021,<sup>5</sup> trial date in the Texas Actions,

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<sup>5</sup> When the parties submitted their briefs discussing § 314(a), the jury selection for the Texas Actions was scheduled for January 4, 2021. *See, e.g.*, Prelim. Resp. 22–23; PO Sur-reply 3–5. On September 17, 2020, the parties jointly informed the Board that the date for jury selection in the Texas Actions was changed from January 4, 2021 to March 1, 2021. Paper 11. This Decision discusses the parties' arguments as if they refer to the updated March 1, 2021, trial date.

which is approximately seven months before the Board's deadline to issue a final decision in this proceeding, supports weighing Factor 2 in favor of denying institution. *See* Prelim. Resp. 22–23; PO Sur-reply 3–5; Paper 11. Patent Owner further contends that, even though Petitioner is not a party to the Texas Actions, the Board should consider the Texas Actions under Factor 2 because the Texas district court will have addressed the same invalidity arguments presented in the Petition against the challenged claims and that the *NHK* and *Fintiv* decisions do not support a fifth duplicative proceeding. PO Sur-reply 3; Prelim. Resp. 19–21. Patent Owner contends the fact that Petitioner is not a party to the Texas Actions is irrelevant to the Factor 5 analysis as Petitioner's customers are parties in those actions. PO Sur-reply 8; *see also id.* (stating that Petitioner named the Texas Defendants as real parties-in-interest in the present Petition). Patent Owner also contends that, because Petitioner is a party to the California Action and has asked the California Court to begin trial *no later* than the Board's deadline for issuing a final decision in this proceeding, the California Action also supports weighing Factors 2 and 5 in favor of discretionary denial. *Id.*

Petitioner argues Factors 2 and 5 support institution. Regarding *Fintiv* Factor 2, Petitioner contends (1) it is not a party to the Texas Actions and, therefore, the schedule of the Texas Actions should not carry any weight and (2) the uncertainty of a trial date in the California Action favors institution. Reply 4–5. Regarding *Fintiv* Factor 5, Petitioner contends it is not a party to the Texas Actions and this factor also favors institution. *Id.* at 6–7.

Having considered the particular circumstances presented here, we determine that Factors 2 and 5 weigh against us exercising our discretion to deny institution.

Regarding the California Action involving Petitioner, the fact that there is no trial date weighs against exercising our discretion to deny institution. *See Google LLC v. Uniloc 2017 LLC*, IPR2020-00441, Paper 13 at 35 (PTAB July 17, 2020) (“The fact that no trial date has been set weighs significantly against exercising our discretion to deny institution of the proceeding.”). Although the parties have requested that trial begin no later than October 2021, the district court has not provided any indication that it will grant the parties’ request for an October 2021 trial date. Thus, the lack of evidence that the California Action will proceed to trial before a final decision in this proceeding is likely to issue weighs against exercising our discretion to deny institution.

Regarding the Texas Actions, because the litigations are scheduled to go to trial approximately seven months before the statutory deadline, this factor would normally weigh in favor of discretionary denial in this case. *See Fintiv II*, Paper 15 at 12–13.

We recognize, however, that Petitioner is not a party to the Texas Actions. Contrary to Patent Owner’s arguments, this is relevant to our analysis. “If 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 I*, Paper 11 at 13–14 (citations omitted).

Patent Owner contends Petitioner is related to the Texas Defendants because the Texas Defendants are Petitioner’s customers and because Petitioner has identified the Texas Defendants as real parties-in-interest in the present proceeding. Prelim. Resp. 30–31 (citing *Valve Corp. v Elec. Scripting Prods., Inc.*, IPR2019-00062, Paper 11 at 2 (PTAB Apr. 2, 2019)).

Based on the record before us, Petitioner has not persuasively shown that Petitioner is sufficiently related to the Texas Defendants so as to weigh in favor of exercising discretion to deny institution. Although Petitioner has identified the Texas Defendants as real parties-in-interest in the present proceeding, Petitioner states that it did so only “out of an abundance of caution” (Pet. 5) and “to avoid unnecessary litigation at the PTAB” (Reply 7). Petitioner contends the only relationship Petitioner has with the Texas Defendants is that the defendants purchase Petitioner’s equipment in arm’s-length business transactions. Reply 7. Additionally, there is nothing in the record to indicate that Petitioner exerts any control over the Texas Actions or the Texas Defendants. The Texas Defendants are represented by separate counsel than Petitioner, and, as argued by Patent Owner in its motion to dismiss the California Action, Petitioner has not acknowledged any duty to indemnify the Texas Defendants. *See* Reply 7 (citing Ex. 1026, 10; Ex. 1027, 12).

Also, in arguing against the Texas Defendants’ motion to transfer to the Northern District of California because of alleged proximity to third-party discovery in that forum, Patent Owner has sought to distance Petitioner from the concerns raised in the Texas Actions. According to Patent Owner, “Dolby is only one of several suppliers of some of the components used by [the Texas] Defendants, and many of their systems do not use any Dolby equipment. These cases are *not* about Dolby.” Ex. 1020 (“Intertrust’s Brief in Opp. to Defendants’ Motion to Transfer Venue”), 5<sup>6</sup>; *see also* Reply 1.

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<sup>6</sup> Citations are to the page numbers inserted by Petitioner.

Patent Owner also cites to *Valve Corp. v Elec. Scripting Prods., Inc.*, IPR2019-00062, Paper 11 at 2 (PTAB Apr. 2, 2019), to support its arguments that Petitioner's pre-existing relationship to the Texas Defendants weighs against institution. *See* Prelim. Resp. 30–31. This argument is not persuasive. The *Valve* decision addressed the question of exercising discretion under the *General Plastic* factors when related parties file serial petitions directed to the same patent. Here, only Petitioner has filed a petition challenging the '304 patent; the Texas Defendants have not.

Thus, considering both the Texas Actions and the California Action, Factors 2 and 5, when considered collectively, weigh against the exercise of our discretion to deny institution pursuant to § 314(a).

*D. Factor 3: investment in the parallel proceeding by the court and the parties*

Patent Owner contends there has been substantial investment in the Texas and California actions and, thus, Factor 3 supports a discretionary denial of institution. *See* PO Prelim. Resp. 23–26. For example, Patent Owner asserts, *inter alia*, that in the Texas Actions, final invalidity and infringement contentions have been already served, the parties have completed claim construction briefing and exchanged multiple rounds of written discovery, the district court has issued its claim construction ruling, and that because trial is expected to begin March 2021, the parties to the Texas Actions will have completed all of their investment months before the Board's final decision in this proceeding is expected to issue. *See* Prelim. Resp. 23–25 (citing Exs. 2004, 2007, 2011).

Patent Owner also contends investment in the California Action includes service of Patent Owner invalidity contentions on Petitioner in

April 2020, the close of claim construction discovery in July 2020, completion of *Markman* briefing by August 17, 2020, and a claim construction hearing to be held by September 22, 2020. *See* Prelim. Resp. 25–26. Patent Owner further contends that, because the proposed schedule to the California Action indicates a desire to have dispositive motions heard and trial completed by October 2021, substantial investment will have been made before the Board issues its final decision in this proceeding. *Id.* at 26.

We recognize that the parties to the Texas and California Actions have invested effort in those proceedings, most notably service of invalidity contentions in the California Action (Ex. 2012) as well as in the Texas Actions (Exs. 2010, 2013, 2014, 2015, 2016) that include detailed invalidity claim charts addressing the prior art cited in this Petition.

Further effort, however, remains to be expended in both proceedings. For example, the Second Amended Docket Control Order (Paper 13) in the Texas Actions indicates that neither fact nor expert discovery is yet completed as fact discovery is scheduled to be completed by November 23, 2020, and expert discovery is scheduled to be completed by January 6, 2021. *See* Paper 13, 3. Regarding the California Action, we accept Petitioner’s representation that fact discovery in the California Action is far from complete as no fact or expert witnesses have yet been deposed. Reply 5. Although the District Court in the Texas Actions has issued a claim construction order (Ex. 2007), no claim terms of the ’815 patent were construed in this order.

As part of our holistic analysis, we also consider the speed in which Petitioner acted. *See Apple Inc. v. Seven Networks, LLC*, IPR2020-00156,

Paper 10 at 11–12 (PTAB June 15, 2020). Based on the evidence submitted by the parties, Petitioner acted diligently in filing the Petition on March 26, 2020, approximately one month after Patent Owner served its infringement contentions identifying the asserted claims of the '815 patent. *See* Reply 2 (citing Ex. 1030 (Intertrust's Disclosure of Asserted Claims & Infringement Contentions"), 2). Because Petitioner acted diligently and without much delay, this mitigates against the investment of the parties. *See Seven Networks*, Paper 10 at 11–12. As *Fintiv I* states, “[i]f the evidence shows that the petitioner filed the petition expeditiously, such as promptly after becoming aware of the claims being asserted, this fact has weighed against exercising the authority to deny institution under *NHK*.” *Fintiv I*, Paper 11 at 11.

Thus, although the district court and the parties to the Texas and California Actions have invested effort in those proceeding, further effort remains to be expended in both cases before trial. Based on the level of investment and effort already expended, the level of effort remaining in both cases, and the promptness with which Petitioner filed its Petition after service of Patent Owner's infringement contention, this factor does not weigh for or against the exercise of our discretion to deny institution pursuant to § 314(a).

*E. Factor 4: overlap between issues raised in the petition and in the parallel proceeding*

Patent Owner contends that there is a “complete” overlap between the issues raised in the Petition and those in the Texas and California Actions. PO Prelim. Resp. 26–29; PO Sur-reply 7–8.



Petitioner contends that it is premature to compare the asserted grounds in the Texas Actions because expert reports have not yet been served and the actual issues that will be addressed at trial may be different from what is presently asserted. Pet. Reply 6. Petitioner notes that there are ten patents asserted and many issues other than invalidity to be tried in the Texas Actions and whether any particular invalidity contention will be presented or considered remains uncertain. *Id.*<sup>7</sup>

It is too hypothetical to assume that the issues presented in the present Petition will not be presented at trial in the Texas and California Actions. Because the challenges asserted in the Petition are asserted in both the Texas and California Actions, this factor weighs in favor of exercising our discretion to deny institution pursuant to § 314(a).

*F. Factor 6: other circumstances that impact the Board's exercise of discretion, including the merits*

Petitioner contends that the strengths of the asserted grounds favor institution, that institution would provide an efficient alternative to Petitioner having to litigate the same grounds in the California Action, and that patent quality is served by having the Board consider the patentability of a patent that is being asserted against a number of defendants. *See* Reply 8–10.

Patent Owner responds that the weakness in the Petitioner's asserted grounds weigh against institution and, because Petitioner filed the California Action, the equities do not favor allowing Petitioner to bring a duplicative challenge of the '815 patent. *See* PO Sur-reply 9–10; Prelim. Resp. 32.

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<sup>7</sup> The Second Amended Docket Control Order states that by November 6, 2020, the parties must “identify no more than five asserted claims (from among the ten previously identified claims) from seven or fewer asserted patents and not more than a total of 16 claims.” Paper 13 App’x A, 3.

As discussed below, Petitioner has met its burden of demonstrating a reasonable likelihood that it would prevail in showing that the challenged claims of the '815 patent are unpatentable. At this preliminary stage of the proceeding and on the record before us, Petitioner's case appears strong on the challenged claims. *See Fintiv I*, Paper 11 at 14–15 (“[I]f the merits of a ground raised in the petition seem particularly strong on the preliminary record, this fact has favored institution.”); *Sand Revolution II, LLC v. Continental Intermodal Group-Trucking LLC*, IPR2019-01393, Paper 24 at 13 (PTAB June 16, 2020) (holding that when the Petition sets forth a strong case, “this factor weighs in favor of not exercising discretion to deny institution under 35 U.S.C. § 314(a).”). We recognize that Patent Owner has only submitted preliminary arguments at this stage, and no testimonial evidence, and the record will fully develop during trial.

We are not persuaded by Patent Owner's argument that the equities weigh against permitting a petitioner who filed a declaratory judgment action of non-infringement to also file a petition challenging the patentability of the claims.

In light of the above considerations, this factor weighs strongly against denying institution under § 314(a).

*G. Weighing the factors*

We have considered the circumstances and facts before us in view of the *Fintiv* factors. Because our analysis is fact driven, no single factor is determinative of whether we exercise our discretion to deny institution under § 314(a). Considering the *Fintiv* factors as part of a holistic analysis, we are not persuaded that the interests of the efficiency and integrity of the system

would be best served by invoking our authority under § 314(a) to deny institution of a potentially meritorious Petition.

For the foregoing reasons, we decline to exercise our discretion pursuant to § 314(a) to deny institution of *inter partes* review.

### III. GROUNDS OF THE PETITION

For the reasons below, we determine that Petitioner has shown a reasonable likelihood that it will prevail in showing that claims 42 and 43 would have been obvious over Gennaro. Because Petitioner has satisfied the threshold for institution as to at least one claim, we institute *inter partes* review on all claims and all grounds raised in the Petition. *See SAS Institute Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018) (holding that a decision to institute under 35 U.S.C. § 314 may not institute on fewer than all claims challenged in the petition); *AC Technologies S.A. v. Amazon.com*, 912 F.3d 1358, 1364 (Fed. Cir. 2019) (stating “if the Board institutes an [*inter partes* review], it must similarly address all grounds of unpatentability raised by the petitioner”). This decision address the asserted patentability of claims 42 and 43 over Hanna and Stefik.

#### A. Legal Standards

“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)); *see also* 37 C.F.R. § 42.104(b) (requiring a petition for *inter partes* review to identify how the challenged

claim is to be construed and where each element of the claim is found in the prior art patents or printed publications relied upon).

A claim is unpatentable under 35 U.S.C. § 103(a) if “the differences between the subject matter sought to be patented 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 skill in the art; and (4) when in evidence, objective evidence of obviousness or nonobviousness, i.e., secondary considerations. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

Additionally, the obviousness inquiry typically requires an analysis of “whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2016) (requiring “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”)). Furthermore, Petitioner does not satisfy its burden of proving obviousness by employing “mere conclusory statements,” but “must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

*B. Level of Ordinary Skill in the Art*

In determining whether an invention would have been obvious at the time it was made, we consider the level of ordinary skill in the pertinent art

at the time of the invention. *Graham*, 383 U.S. at 17. Petitioner contends a person of ordinary skill in the art at the time of the alleged invention of the '815 patent (a "POSITA") would have had a background in electronic data protection and distribution, a minimum of a bachelor of science's degree in computer science, electrical engineering, mathematics, or a related field, and approximately four years of professional experience or equivalent study in the design of electronic systems for data protection and distribution. Pet. 18. Petitioner further states that additional graduate education could substitute for professional experience, or significant experience in the field could substitute for formal education. *Id.* (citing Ex. 1002 ¶¶ 1-48).

Patent Owner sets forth a similar definition, stating that a POSITA would have a Bachelor of Science degree in electrical engineering and/or computer science, and three years of work or research experience in the fields of secure transactions and encryption, or a Master's degree in electrical engineering and/or computer science and two years of work or research experience in related fields. Prelim. Resp. 14. Patent Owner states that the positions set forth in its Preliminary Response would be the same under either parties' proposal. *Id.*

The parties' proposals do not differ in any meaningful way to the issues in dispute. We adopt Petitioner's articulation of the level of ordinary skill in the art, which is supported by the testimony of Dr. Madisetti and is commensurate with the level of ordinary skill as reflected in the prior art and the '815 patent. We note, however, that our analysis would be the same under either parties' definition of a POSITA.

*C. Claim Construction*

For petitions filed on or after November 13, 2018, such as here, we apply the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. 37 C.F.R. § 42.100(b) (2018); *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

Neither party proposes a claim construction for any terms of the '815 patent at this stage of the proceeding. *See* Pet. 18–19; Prelim. Resp. 16. We determine no claim terms need to be construed to resolve any controversies in dispute at this time. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (stating only those claim terms that are in controversy need to be construed, and only to the extent necessary to resolve the controversy).

*D. Asserted Unpatentability of Claims 42 and 43 over Hanna and Stefik*

Petitioner contends that claims 42 and 43 would have been obvious under 35 U.S.C. § 103(a) over the combined teachings of Hanna (Ex. 1006) and Stefik (Ex. 1007). *See* Pet. 19–41. Petitioner explains how this proffered combination purportedly teaches the subject matter of the challenged claims and asserts that a person of ordinary skill in the art would have had reason to combine the teachings of Hanna and Stefik. *See id.* Patent Owner responds that Hanna fails to disclose “receiving a request to use [a] file in a predefined manner” as recited in claim element 42[a] or “granting the request to use the file in the predefined manner” as recited in

claim element 42[e]. Prelim. Resp. 44–49. Patent Owner also argues that a POSITA would not have been motivated to combine the teachings of Hanna and Stefik to arrive at the claimed invention or that such a combination would not have had a reasonable expectation of success. *Id.* at 49–54.

For the reasons stated below, we determine that, although Petitioner has sufficiently shown that Hanna and Stefik teach or suggest each of the limitations of claims 42 and 43, and has sufficiently shown a reason to combine the teachings of these two asserted references, Patent Owner has provided sufficient evidence that Hanna is not prior art to claims 42 and 43 of the '815 patent.

*1. Overview of Hanna*

Hanna, titled “Method and apparatus for efficient authentication and integrity checking using hierarchical hashing,” is directed to a method and system for signing data and verifying data. Ex. 1006, code (54), (57). Data signing involves dividing a data set into packets, hashing the data within each of the packets to produce a hash block including hash values and applying a digital signature to the hash block. *Id.* at code (57). The verifying process involves receiving a packet including data, a hash block, and a digital signature, verifying the digital signature, hashing the data to produce hash values, and comparing the has values to values in the hash block. *Id.*

Figure 2, reproduced below, is a flowchart of the steps of one embodiment that are used to digitally sign the hash block. *Id.* at 5:29–30.<sup>8</sup>

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<sup>8</sup> Citations are to the page numbers inserted by Petitioner.

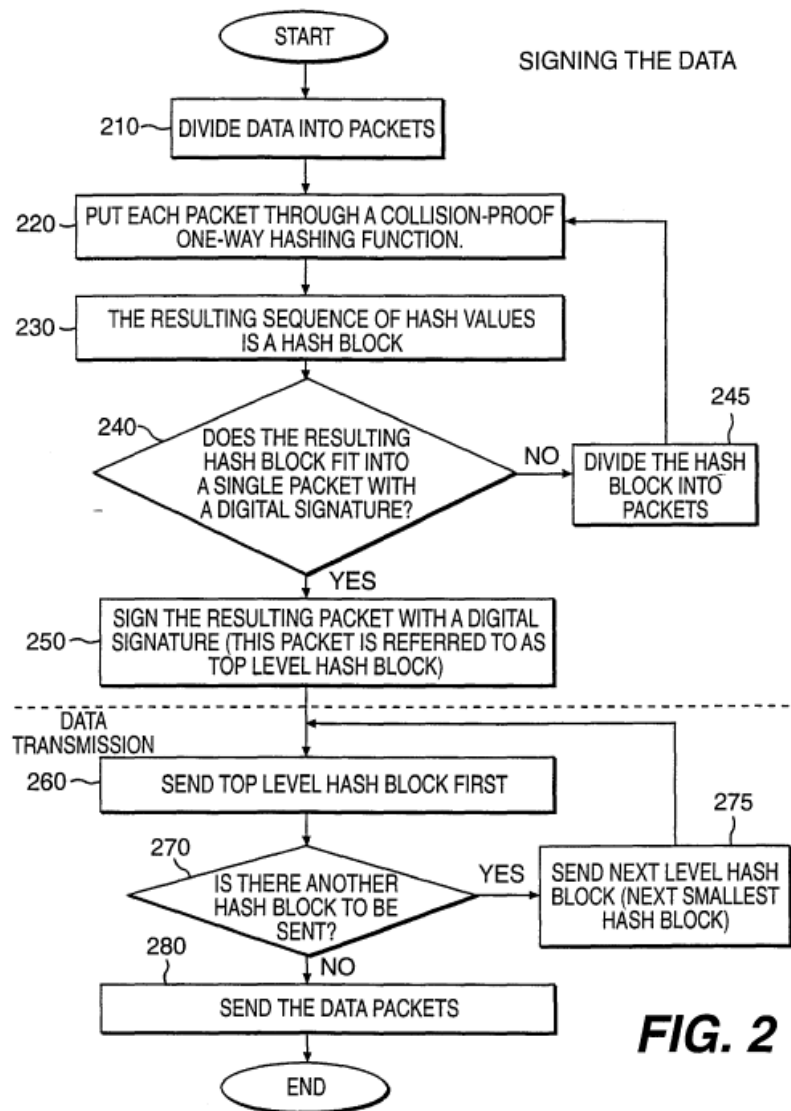
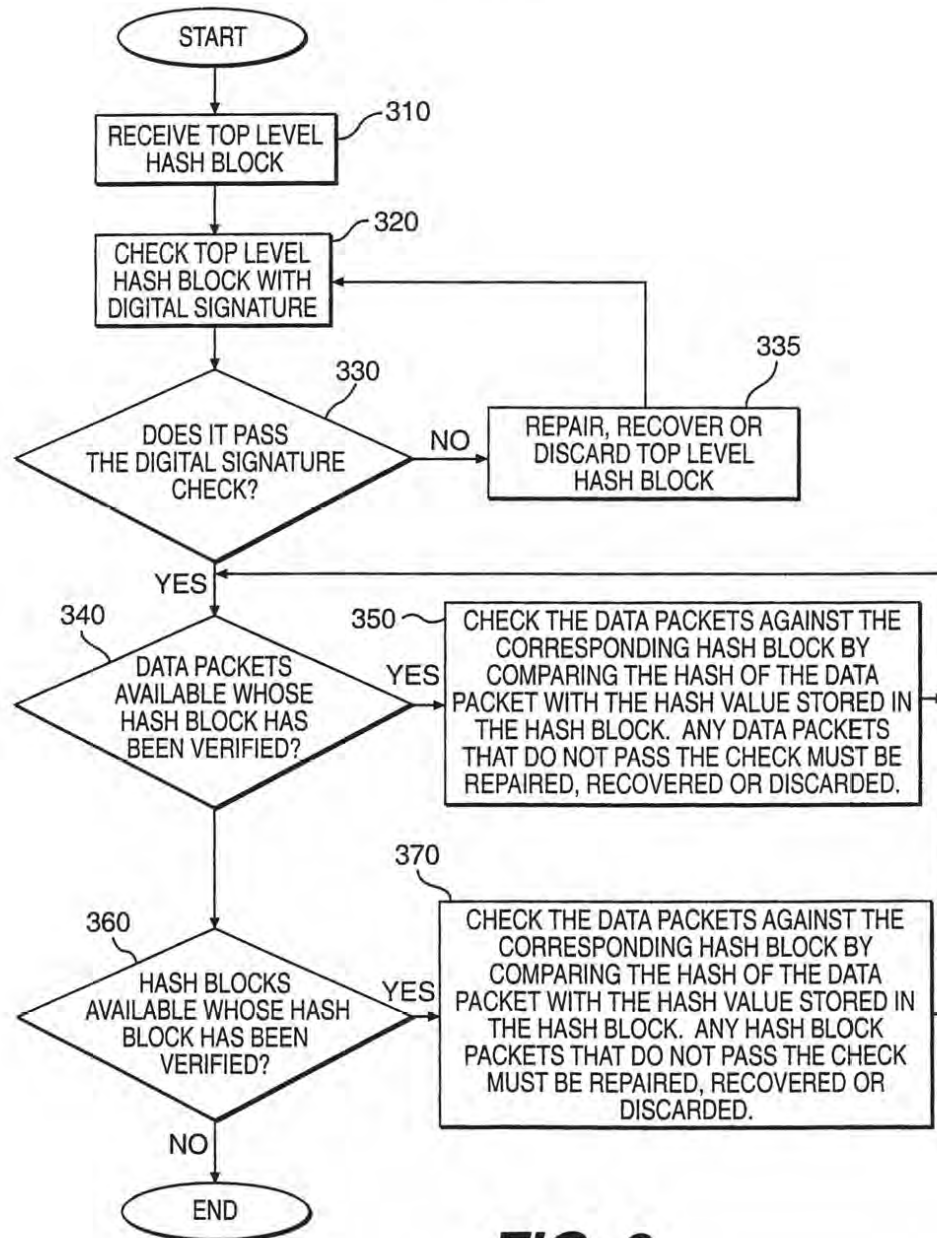


Figure 2 above is a flowchart of the steps used in the signing procedure of hierarchical hashing. *Id.* at 10:9–10. In step 210, the data set is divided into small packets. *Id.* at 10:10–11. A one-way hash function is applied to each packet (step 220) to produce a hash value. *Id.* at 10:14–16. The sequence of hash values is called a hash block (step 230). *Id.* at 10:16–17. If the hash block is too large to fit in a single packet along with the digital signature (step 240), the hash block will be divided into packets (step 245) and the hash function is applied to each packet to produce a new hash



block, which will be smaller than the previous hash block. Steps 220–245 are repeated until the hash block will fit into a single packet with the digital signature. *Id.* at 10:18–25.

Figure 3 below is a flow chart of the steps used in data receiving and verification procedure for systems. *Id.* at 6:1–2, 11:22–23.



**FIG. 3**

Figure 3 above, is a flow chart showing that the digital signature on the top level packet must be verified first (step 320). *Id.* at 11:23–24. If the signature fails this verification step, or it is determined that the packet was corrupted during transmission, the top level packet must be repaired or recovered before checking the other packets (steps 330, 335) *Id.* at 11:24–26.

## 2. *Prior Art Status of Hanna*

As an initial matter, we address whether Hanna is available as prior art to the '815 patent under 35 U.S.C. § 102(a). Hanna was published on August 12, 1999, which is before the June 7, 2000, filing date of the '815 patent but after the June 8, 1999, filing date of U.S. Provisional Application 60/138,171 (Ex. 1004, the "'171 application"), to which the '815 claims priority. *See* Pet. 7–8, 13–18; Ex. 1001, code (22), (60); Ex. 1006, code (43). Petitioner contends that the '815 patent is not entitled to claim priority back to the June 8, 1999, filing date of the '171 application because the '171 application does not provide sufficient written description support for either (1) retrieving a check value associated with the file as required by claim element 42[b] or (2) verifying the authenticity of that check value using the digital signature as required by claim element 42[c]. *See* Pet. 13–18. In particular, Petitioner contends the '171 application does not contain Figures 13 and 14, their corresponding disclosures, or the corresponding summary of the embodiment, which provide support for these claim elements. *See id.* at 15 (citing Ex. 1001, 4:50–58; 23:4–10, 23:54–60; Ex. 1002 ¶¶ 67–69).

Patent Owner responds that Petitioner erroneously focused on the material that was added to the application giving rise to the '815 patent and

failed to consider the material in the '171 provisional application that provides written description support for the challenged claims. *See* Prelim. Resp. 33–44 (citing Ex. 1004, 10–13, 17–21, Figs. 2A–D, 3, 5B, 6).

At this stage of the proceeding we are persuaded by Patent Owner's arguments that the '171 application provides written description support for claim elements 42[b] and [c].

Claims are entitled to the benefit of the filing date of an earlier filed application only if the disclosure of the earlier application provides written support for those claims, as required by 35 U.S.C. § 112. *In re Chu*, 66 F.3d 292, 297 (Fed. Cir. 1995). To satisfy the written description requirement, the prior application must convey with reasonable clarity to those skilled in the art that, as of the earlier filing date, the inventor was in possession of the invention. *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563–64 (Fed. Cir. 1991). In addition, “[e]ntitlement to a filing date does not extend to subject matter which is not disclosed, but would be obvious over what is expressly disclosed.” *In re Huston*, 308 F.3d 1267, 1277 (Fed. Cir. 2002).

Claim element 42[b] recites “retrieving at least one digital signature and at least one check value associated with the file” and claim element 42[c] recites “verifying the authenticity of that check value using the digital signature.” Based on the present record, we are persuaded by Patent Owner's arguments that the '171 application provide sufficient support for these limitations.

Figure 6 of the '171 application (Ex. 1004, 34) is reproduced below.

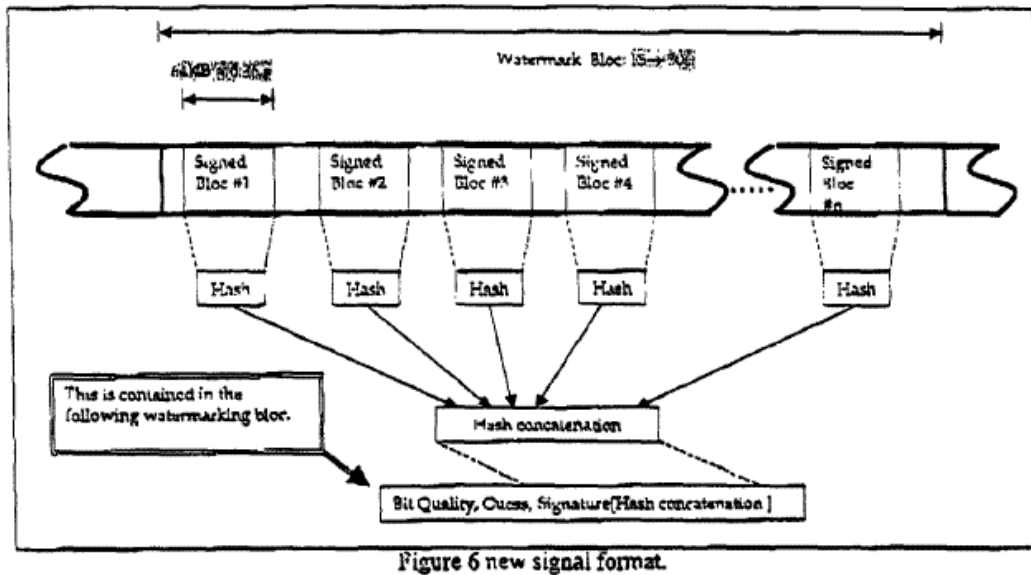


Figure 6 of the '171 application, reproduced above, illustrates a technique involving the use of an error-recovered shared signature scheme that comprises partitioning assigned data stream 602, “hashing apart those partitions and concatenating the resulting hashes,” and then signing the hash concatenation. Ex. 1004, 21, 34. Figure 6 indicates that the signed “Hash concatenation” is “contained in the following watermarking bloc[k].” *Id.*

Figure 2D of the '171 application (Ex. 1004, 29) is reproduced below.

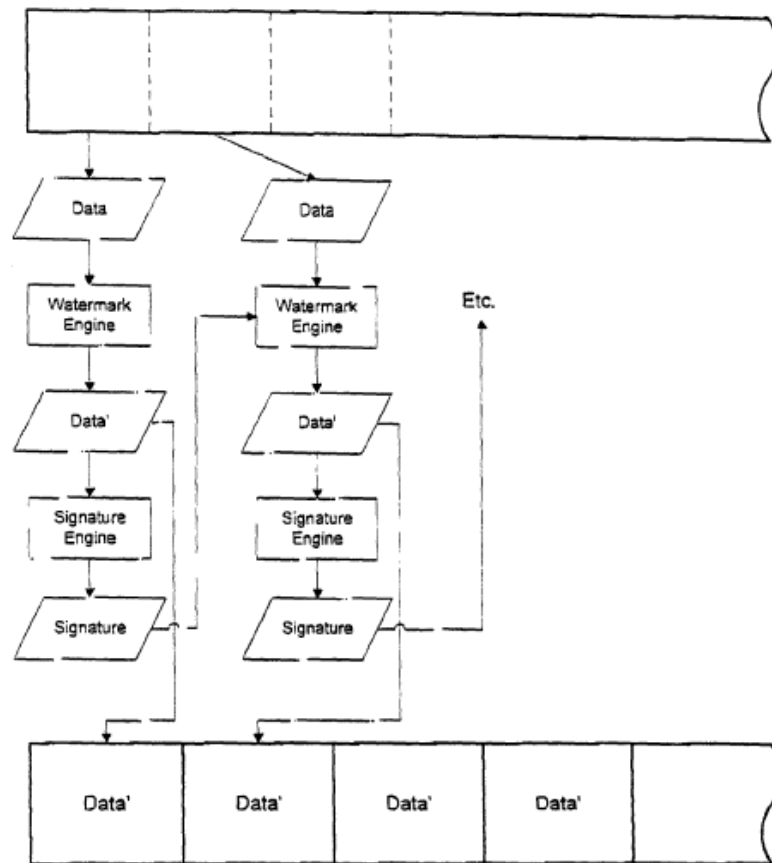


FIG. 2D

Figure 2D, shown above, illustrates an embodiment that “*embed[s] a block’s signature in the watermark of the block that follows the block to which the signature corresponds.*” Ex. 1004, 13 (emphasis added). Patent Owner asserts that, given a stream of data (e.g., data blocks “n,” “n+1,” “n+2,” etc. in FIG. 2D), a signature of data block “n” can be embedded into the watermark of data block “n+1.” Prelim. Resp. 37–38. Similarly, a signature of data block “n+1” can be embedded into the watermark of the following block in the transmission, data block “n+2,” and so on. *Id.* (citing Ex. 1004, 12–13, Figs. 2D, 3).

Claim element 42[b] recites “retrieving at least one digital signature and at least one check value associated with the file.” We are persuaded by Patent Owner’s argument that the ’171 application’s disclosure of, *inter alia*, extracting a “digital signature” from the watermark of the successive data block (e.g., data block “n+1”) to proceed with the verification of the “current” data block (e.g., data block “n”) discloses “retrieving at least one digital signature . . . associated with the file.” Based on the current record, we are also persuaded by Patent Owner’s argument that a POSITA would have understood that the hash concatenation of the current data block would be retrieved (e.g., from received data block “n”) by portioning and hashing the current data block discloses “retrieving . . . at least one check value associated with the file.” *Id.* at 41.

Claim element 42[c] recites “verifying the authenticity of the at least one check value using the digital signature.” We are persuaded by Patent Owner’s argument that the ’171 application’s disclosure of extracting the hash concatenation from the digital signal and comparing that concatenation to the hash concatenation retrieved from the received data block, discloses the subject matter of claim element 42[c]. *Id.* at 41–42 (quoting Ex. 1004, 21 (“If an error appears on the data, the signature will verify for all partitions except for the one that is affected”)) (citing Fig. 2C (illustrating signature verification by comparing a hash of the data block received (i.e., “X”) and a hash of the unsigned signature (i.e., “X”))).

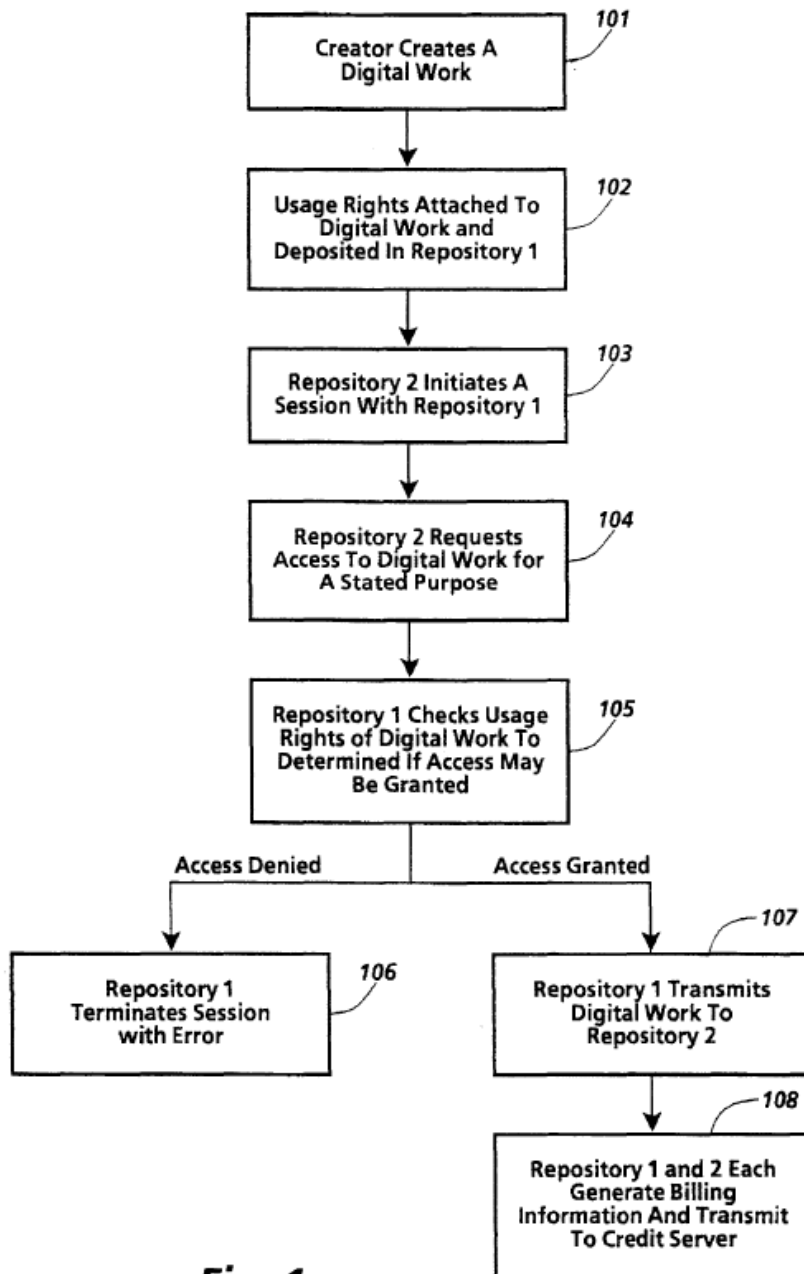
Therefore, on the preliminary record, Patent Owner has provided sufficient evidence that Hanna is not prior art to claim 42 or, by dependency, claim 43. *See Dynamic Drinkware, LLC v. National Graphics, Inc.*, 800 F.3d 1375, 1379–80 (Fed. Cir. 2015) (discussing the shifting burden of

production to show whether an asserted reference constitutes prior art to the challenged claims).

3. *Overview of Stefik*

Stefik, entitled “System for Controlling the Distribution and Use of Digital Works,” is directed to a method and system for controlling usage and distribution of digital works, such as software. Ex. 1007, code (54), (57).

Figure 1 of Stefik, reproduced below, is a flowchart detailing the basic operations of a method for controlling the use and distribution of digital works. *Id.* at 6:19–20, 7:6–8.



**Fig. 1**

In step 1 of the flow chart shown in Stefik’s Figure 1 above, a digital work is stored in Repository 1 (step 102). *Id.* at 7:8–11. The digital work remains in Repository 1 until a request for access is received. *Id.* at 7:12–13. In step 103, Repository 2 initiates a session with Repository 1; in step 104, Repository 2 “request[s] access to the Digital Work for a stated purpose,”



such as to print or obtain a copy of the digital work. *Id.* at 7:15–22. In step 105, Repository 1 checks the usage rights associated with digital work to determine if access to the digital work may be granted. *Id.* at 7:24–26. If access is granted, Repository 1 transmits the digital work to Repository 2, as shown in step 107. *Id.* at 7:30–32.

4. *Claim 42*

a) *Preamble*

Petitioner contends both Hanna and Stefik teach a “method for managing at least one use of a file of electronic data” as recited in the preamble of claim 42. Pet. 30–31. Petitioner contends Hanna teaches managing at least one use (e.g., copying, downloading, retrieving, receiving, executing, or storing) an electronic data file (e.g., computer files or a data set). *Id.* at 30 (citing Ex. 1006, code (57), 1:10–13, 3:6–22, 7:15–26, 12:3–4, Figs. 2–5; Ex. 1002 ¶ 93). Petitioner also contends Stefik discloses method for managing at least one use (e.g., installation) of an electronic data file (e.g., digital work or software). *Id.* at 30–31 (citing Ex. 1007, code (57), 3:51–61, 4:29–36, 6:36–56, 19:51–55, 42:26–36, 51:1–5, 51:64–67; Ex. 1002 ¶¶ 49–50, 94–96). Patent Owner does not dispute Petitioner’s assertions. We have reviewed Petitioner’s argument and evidence and determine Petitioner has sufficiently shown both Hanna and Stefik teach the subject matter recited in the preamble.<sup>9</sup>

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<sup>9</sup> Because we determine Petitioner has sufficiently shown the cited art teaches the subject matter recited in the preamble, we need not determine whether the subject matter recited in the preamble is limiting.

*b) Claim element 42[a]*

Claim element 42[a] recites “receiving a request to use the file in a predefined manner.” Petitioner asserts, *inter alia*, a POSITA would have understood that Hanna’s disclosure of (1) backing up computer files to a remote central database and (2) a secure transmission of information in video conference involves a request to transmit, copy, and/or store files of electronic data. *See* Pet. 31 (citing Ex. 1002 ¶¶ 97–98; Ex. 1006, 1:10–15).

Patent Owner responds that neither of these two disclosures of Hanna teaches receiving a request to use a file in a predefined manner. *See* Prelim. Resp. 44. Patent Owner contends that Hanna does not disclose (1) that backing up a file to a remote central server is performed in response to a request or (2) that Hanna’s video conferencing involves the receipt of a request to use a file. Prelim. Resp. 46 (citing Ex. 1006, 1:10–15). Patent Owner contends that, in both examples, Petitioner is making an inherency argument that a POSITA would have understood that such requests to use the file would be necessarily present in Hanna. *Id.* at 46–47.

We are not persuaded by Patent Owner’s arguments on the present record. What a POSITA would have understood is an issue that is best resolved upon consideration of a full record. Petitioner has provided sufficient argument and evidence, including declaratory testimony of Dr. Madisetti, that a person of ordinary skill in the art would have understood that in order to facilitate the transmission of electronic files, such as by backing up computer files or transmitting information in a video conference as disclosed in Hannah, there would be a communication requesting the file to be used in a predefined manner. *See* Pet. 26–28, 31; Ex. 1002 ¶ 88 (citing Ex. 1006, 7:21–23), ¶ 98 (citing Ex. 1002 ¶¶ 58–59);

*see also* Ex. 1001, 4:66–5:1 (stating consumer use of electronic data can include “copying, moving,” or “viewing” the data).

Thus, based on the present record, Petitioner has sufficiently shown that Hanna teaches or suggests the limitations recited in claim element 42[a].<sup>10</sup>

Additionally, Petitioner asserts that to the extent Hanna does not teach a “request” to use the file in a predefined manner, Stefik teaches the limitations of claim element 42[a]. *See* Pet. 28, 31–33, 38–39. For example, Petitioner contends Stefik’s “Install Transaction” is a request to install a digital work and, therefore, is a request to use a file in a predefined manner that is received from a user via the user interface. Pet. 31 (citing Ex. 1007, 26:37–47, 42:26–31; Ex. 1002 ¶ 99). Petitioner further contends Stefik’s “Repository 2” can “request access to the Digital Work for a stated purpose” such as “to obtain a copy of the digital work.” *Id.* (citing Ex. 1007, 7:19–23, 20:48–52; Ex. 1002 ¶ 100).

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<sup>10</sup> Petitioner also contends Hanna discloses transmitting a requested code for an application program is a request to copy, store, and/or execute the program that teaches “receiving a request to use the file in a predefined manner” as recited in claim element 42[a]. Pet. 31 (citing Ex. 1006, 7:16–18, 7:24–26). This argument is not persuasive as claim 42 also requires, *inter alia*, verifying the authenticity of that file using a check value. *See* Ex. 1001, 32:22–23. Petitioner has not shown that the authenticity of the application program is verified using a check value. We are persuaded by Patent Owner’s argument that this cited portion of Hanna relates to the initial transmission of software that will be installed and used to implement Hanna’s hashing scheme and does not teach that this software transfer is performed using Hanna’s hashing scheme. *See* Prelim. Resp. 45 (citing Ex. 1006, 5:22–28, 6:3–25, 7:16–20).

At this stage of the proceeding, Patent Owner does not dispute that Stefik teaches the limitations of claim element 42[a]. *See generally* Prelim. Resp. We have reviewed Petitioner’s argument and evidence and determine Petitioner has sufficiently shown Stefik teaches receiving a request to use the file in a predefined manner as recited in claim element 42[a].

Rather, Patent Owner responds to Petitioner’s reliance on Stefik in this regard by arguing that POSITA would not have been motivated to combine the teachings of Hanna and Stefik because the two references are “*not* directed to the same field of endeavor” and do not address the same problem. Prelim. Resp. 50. Patent Owner contends Hanna is directed to data corruption detection system using a hierarchical hashing scheme while Stefik is directed to preventing the unauthorized and unaccounted distribution or usage of electronically published materials. *Id.* at 50–51 (citing Ex. 1006, 1:5–8, 2:1–3:4, 3:6–10; Ex. 1007, 1:5–8, 1:10–23, 3:40–47, 3:50–58)). Patent Owner further contends that a POSITA would not have a reason to modify Hanna’s request-free, data corruption detection scheme that uses hierarchical hashing with Stefik’s digital works usage rights system to achieve a combination that includes “receiving a request to use [a] file in a predefined manner” and “granting the request.” *Id.* at 52–53.

We have reviewed the parties’ arguments and the evidence of record, including the declaration testimony of Dr. Madisetti, and we are persuaded the current record contains sufficient evidence supporting Petitioner’s arguments that a POSITA would have had reason to combine the teachings of Hanna and Stefik. *See, e.g.*, Pet. 26–30.

For example, Dr. Madisetti testifies that Hanna and Stefik are both from the same field of endeavor, digital file security, both references address

the problem of unauthorized manipulation of digital files, and both references use a digital authentication mechanism having a digital signature or certificate to identify the source of a digital file and hash functions that check the integrity of the data. Ex. 1002 ¶ 90. Dr. Madisetti further testifies that a POSITA would have been motivated to modify Hanna’s data protection system to include receiving and granting a request to use an electronic data file in a predefined manner, as taught by Stefik, to “improve control over use and distribution of valuable data” such as by granting the request if the requested use meets a predefined usage right or whether at least a portion of the file has been authenticated. *See id.* at ¶ 91 (citing Ex. 1007, 7:19–30, 42:43–55); *see also id.* at ¶ 90 (stating that a POSITA would have been motivated to modify the system of Hanna to include a request/grant process as taught by Stefik to “facilitate timely detection to determine whether a portion of the electronic file was corrupted or hacked” before use).

Petitioner further contends that a POSITA would have a reasonable expectation of success in utilizing Stefik’s request/grant process in the data protection system of Hanna because Hanna already has a communication mechanism in place to facilitate the request/grant process as taught in Stefik. Pet. 29–30 (citing Ex. 1006, 5:2–5, 6:26–7:7; Ex. 1002 ¶¶ 49–60, 92).

Patent Owner’s arguments to the contrary are not persuasive at this stage of the proceeding as they raise issues best resolved on a full record. Accordingly, at this stage of the proceeding, Petitioner has sufficiently shown that Hanna and Stefik teach the subject matter of claim element 42[a], and that a person of ordinary skill in the art would have had reason to

combine the teachings of Hanna and Stefik with a reasonable expectation of success.

*c) Claim elements 42[b]–[d]*

Petitioner contends Hanna teaches a “retrieving at least one digital signature and at least one check value associated with the file,” “verifying the authenticity of the at least one check value using the digital signature,” and “verifying the authenticity of at least a portion of the file using the at least one check value” as recited in claims elements 42[b], [c] and [d]. Pet. 33–38 (citing Ex. 1002 ¶¶ 51–57, 102–110; Ex. 1006, code (57), 3:6–17, 4:15, 4:26–27, 8:9–11, 8:14–17, 9:1–24, 9:22–26, 10:1–4, 11:12–19, 11:27–12:2, Figs. 2–5). Patent Owner does not dispute Petitioner’s assertions regarding these three limitations. We have reviewed Petitioner’s argument and evidence and determine Petitioner has sufficiently shown Hanna teaches the subject matter recited in the claim elements 42[b]–[d].

*d) Claim element 42[e]*

Claim element 42[e] recites “granting the request to use the file in the predefined manner.” Petitioner contends Hanna teaches performing a check (i.e., verifying the data packets by computing the hash of the packet and comparing the hash value stored in the hash block) on the file and, if the data packet is corrupt, repairing, recovering, or discarding the data packet. Pet. 38 (citing Ex. 1002 ¶¶ 111–112). Petitioner contends that it would have been obvious to a POSITA to allow or prevent a requested use of the file depending on whether it passes the authentication process. *Id.* (citing Ex. 1002 ¶¶ 111–112). Petitioner further contends that, to the extent granting a request to use a file in a predefined manner is not disclosed in Hanna, Stefik disclosure of, *inter alia*, granting a request by one repository

to obtain a copy of software stored in another repository for a stated purpose, discloses the subject matter of claim element 42[e]. *Id.* at 38–39 (citing Ex. 1007, 6:36–56, 7:19–33, 16:61–67, 20:48–54, 42:26–31, 42:49–43:21, 51:1–5, 51:64–67, 52:35–37, 56:6–9, Fig. 1; Ex. 1002 ¶¶ 58, 60, 113–115).

Patent Owner responds that, because Hanna does not teach receiving a file request in the first place, it would not have been obvious to grant the file request. Prelim. Resp. 48–49.

We have reviewed Petitioner’s argument and evidence and determine Petitioner has sufficiently shown the cited art teaches or suggests granting a request to use a file in a predetermined manner for the purposes of institution. Based on the current record, we are not persuaded by Patent Owner’s argument that Hanna does not teach granting a file request because it does not teach receiving a file request for the reasons stated above in Section II.E.4(b). Patent Owner’s arguments raise issues best resolved on a full record. Accordingly, at this stage of the proceeding, Petitioner has sufficiently shown that Hanna and Stefik teach or suggest the subject matter of claim element 42[e].

*e) Conclusion*

For the foregoing reasons, we conclude that, although Petitioner has sufficiently shown that Hanna and Stefik teach or suggest each of the limitations of claim 42, and has sufficiently shown a reason to combine the teachings of the asserted art, Patent Owner has sufficiently shown that Hanna does not qualify as prior art to claim 42 of the ’815 patent.

*5. Claim 43*

Claim 43 recites:

A method as in claim 42, in which the at least one check value comprises one or more hash values, and in which verifying the authenticity of at least a portion of the file using at least one check value includes:

- [a] hashing at least a portion of the file to obtain a first hash value; and
- [b] comparing the first hash value to at least one of the one or more hash values.

Ex. 1001, 26–34 (bracketed material and formatting added for clarity).

Petitioner relies on Hanna for disclosing the additional limitations of claim 43. Pet. 40–41. For example, Petitioner contends Hanna’s hash block (check value) comprises one or more hash values and that the authenticity of the Hanna’s data packet of a data set (i.e., portion of the file) is verified using the hash block (at least one check value). *Id.* at 40 (citing Ex. 1002 ¶¶ 116–117; Ex. 1006, 3:10–11, 4:15, 8:9–11, 9:1–4, 10:1–4, 11:24–12:2, Figs. 2–5). Petitioner further contends Hanna teaches a hash function that is applied to each packet and compared to the corresponding hash value in the block above, and that the hash value of the data packet (the first hash value) is compared to the hash value stored in the hash block (the at least one or more of the hash values). *Id.* at 40–41 (citing Ex. 1002 ¶¶ 120–121; Ex. 1006, code (57), 3:6–17, 4:15, 4:26–27, 8:9–11, 10:1–4, 11:12–19, 11:24–12:2, Figs. 2–5).

Patent Owner does not dispute Petitioner’s assertions regarding the additional limitations of dependent claim 43. We have reviewed Petitioner’s argument and evidence and determine that, for purposes of this institution decision, Petitioner has shown sufficiently that Hanna teaches the limitations recited in claim 43. However, as noted above, Patent Owner has sufficiently shown that Hanna does not qualify as prior art to claim 42, and by



dependency, to claim 43 of the '815 patent. As such, based on the present record, Petitioner has not shown a reasonable likelihood that it would prevail in establishing that claim 43 would have been obvious over Hanna and Stefik.

*E. Asserted Unpatentability of Claims 42 and 43 over Gennaro*

Petitioner contends that claims 42 and 43 would have been obvious under 35 U.S.C. § 103(a) over Gennaro. *See* Pet. 42–59. Petitioner explains how Gennaro purportedly teaches the subject matter of the challenged claims and asserts that a person of ordinary skill in the art would have had reason to modify the teachings of Gennaro. *See id.* Patent Owner responds that Gennaro fails to disclose “receiving a request to use [a] file in a predefined manner” as recited in claim element 42[a] or “granting the request to use the file in the predefined manner” as recited in claim element 42[e]. Prelim. Resp. 54–59.

For the reasons stated below, we conclude that Petitioner has demonstrated a reasonable likelihood it would prevail in showing that claims 42 and 43 would have been obvious over Gennaro.

*1. Overview of Gennaro*

Gennaro, titled “How to Sign Digital Streams” is directed to a method of signing digital streams, such as video streams, so that the receiver of the stream can authenticate and consume the stream at the same rate at which the stream is being sent to the receiver. Ex. 1008, codes (54), (57), 2:43–48. The method involves computing and verifying a single digital signature on at least a portion of the stream. *Id.* at code (57). The properties of this single signature will propagate to the rest of the stream through ancillary information embedded in the rest of the stream. *Id.*

Figure 1B of Gennaro, reproduced below, is a schematic that illustrates part of step 2 of a process involving the signing of digital streams. *See id.* at 3:24–28.

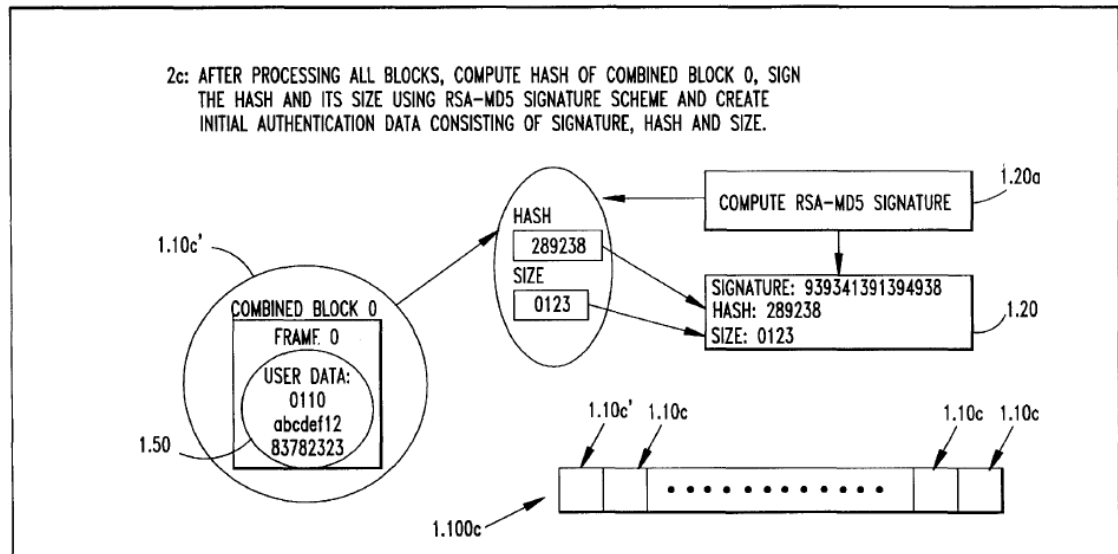


Figure 1B above shows that the initial authentication data consists of “signature, hash, and size.”

Figure 2A, reproduced below, is a schematic that illustrates a process of authenticating a signed digital stream signal. *Id.* at 3:29–31.

FIG.2A

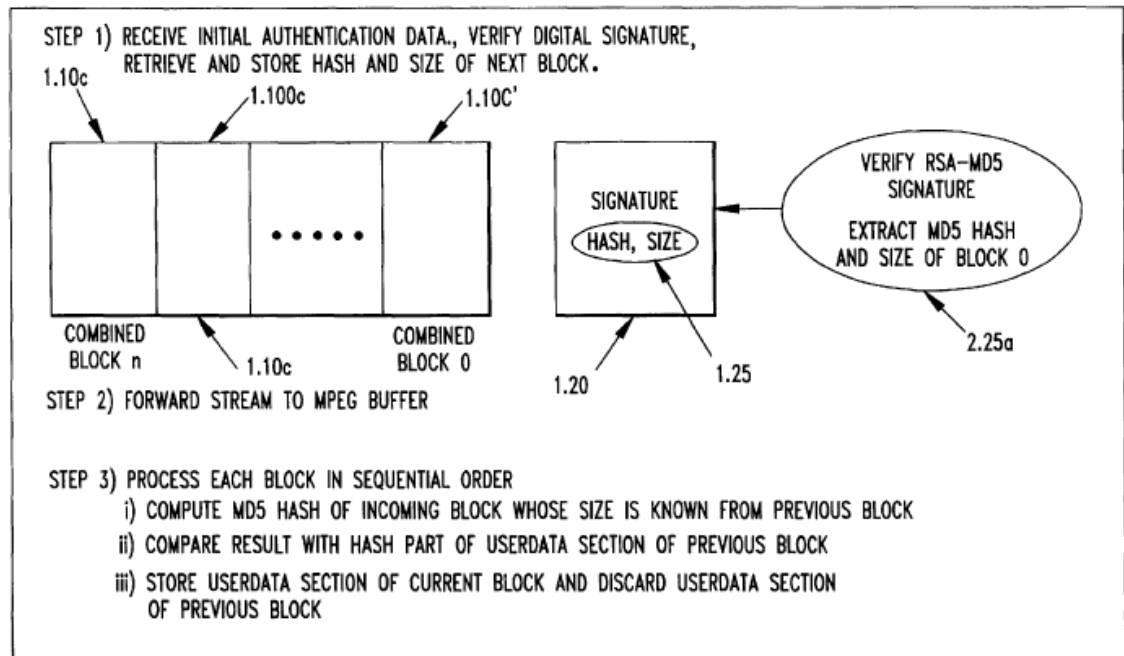


Figure 2A above, illustrates the steps involved in authenticating the combined stream. *See id.* at 5:3–4. In step 1, before “receiving the combined stream (1.10c) the receiver receives the initial authentication data (1.20) consisting of a digital signature on the hash of the first combined block (1.10c') and the size of first combined block, together with the purported values of the hash and size.” *Id.* at 5:23–27. “The authentication software at this stage does the following (2.25a): It verifies the signature. If the provided signature verifies, then the purported hash and size values of the first combined block (1.10c') are authentic, and the hash and size values 1.25 are extracted out for use in authenticating the combined stream (1.100c).” *Id.* at 5:27–34. In step 2, the receiver receives the combine stream, which is then forwarded into the Moving Picture Experts Group (MPEG) bit-buffer. *Id.* at 5:35–39.

In step 3, the incoming combined stream is split into blocks by the authentication software. *Id.* at 5:40–41. The MD5 hash of incoming bytes is computed. *Id.* at 5:48–53. The MD5 hash of the recently arrived block is compared against what it should be according to the authentication chain emanating from the Digital Signature from (1.20). If hash is different, then tampering has been detected and processing is halted. *Id.* at 5:54–58. Otherwise, the MPEG software/hardware is informed that a block of bits of a certain size representing a frame has arrived and it can proceed to process the incoming original block that was authenticated. *Id.* at 5:58–62. Concurrently, the now authenticated size and hash of the next block stored in the ancillary part of the processed block (1.50) is extracted for use to authenticate the next block. *Id.* at 5:63–66.

2. *Claim 42 and 43*

a) *Claim 42 -Preamble and elements 42[b]–[d] and Claim 43*

Petitioner asserts Gennaro discloses the subject matter recited in the preamble and claim elements [b]–[d] of claim 42 and in claim 43. Pet. 48–55, 57–59 (citing, *inter alia*, Ex. 1002 ¶¶ 49–57, 137–138, 143–155; Ex. 1008, code (57), 1:24–34, 2:50–54, 2:64–3:4, 3:5–73:66–4:1, 4:34–48, 4:51–55, 4:59–5:2, 5:23–34, 5:48–57, Figs. 1B, 2A, 5:7–14, 12:44–51). Patent Owner does not dispute Petitioner’s assertions. We have reviewed Petitioner’s argument and evidence and determine Petitioner has sufficiently

shown Gennaro teaches the subject matter recited in the preamble<sup>11</sup> and claim elements [b]–[d] of claim 42 and in claim 43.

*b) Claim elements 42[a] and [e]*

Claim element 42[a] recites “receiving a request to use the file in a predefined manner.” Claim element 42[e] recites “granting the request to use the file in the predefined manner.” Petitioner cites to various disclosures of Gennaro as teaching or suggesting the limitations of claim elements 42[a] and [e]. *See* Pet. 48–50, 56–57 (citing Ex. 1002 ¶¶ 58–60, 139–142, 156–159; Ex. 1008, 1:28–29, 2:39–42, 2:54, 2:64–67, 5:4–12, 5:15–20, 5:35–67).

For example, Petitioner contends Gennaro discloses multiple requests to use a file in a predefined manner, including playing internet applications (e.g., digital movies), and, thus, teaches the subject matter of claim element 42[a]. *Id.* at 48–49 (citing, *inter alia*, Ex. 1008, 2:64–67; Ex. 1002 ¶ 140). Petitioner contends that, when a user requests to play a file, a receiver requests transmission of the digital stream comprising the video for that purpose. *Id.* (citing Ex. 1008, 1:28–29). Petitioner contends that it would have been obvious to a POSITA that the receiver would make similar requests for all file transmissions and that such requests would be received by a sender of the digital stream. *Id.* (citing Ex. 1002 ¶ 141). Petitioner further contends that Gennaro teaches granting a request to use the file in a predefined manner, required by claim element 42[e], such as by disclosing “play the stream,” “consume authenticated data” and proceeding “to process the incoming original block that was authenticated.” *Id.* at 56–57 (citing,

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<sup>11</sup> Because we determine Petitioner has sufficiently shown the cited art teaches the subject matter recited in the preambles, we need not determine whether the subject matter recited in the preambles is limiting

*inter alia*, Ex. 1002 ¶ 156); Ex. 1002 ¶ 157 (stating a POSITA would have understood that a receiver playing a digital stream as granting the user's request to play an internet application (e.g., a digital movie)).

Patent Owner responds, *inter alia*, that Gennaro's disclosure of processing streams of data related to internet applications, such as digital movies, according to Gennaro's method of signing and authenticating a data stream does not teach that a user request is received to use the data stream or teach "rendering or playing" the internet application. Prelim. Resp. 54–55. Patent Owner further contends claim element 42[e] requires that the request to use the file is *granted* and that not taking any action to stop a process is not the same as granting. *Id.* at 58. Patent Owner further contends that "asking for a data stream" does not teach receiving a request to use the file in a predefined manner. *Id.* at 59.

We are not persuaded by Patent Owner's arguments on the present record as the arguments raise issues that are best resolved upon consideration of a full record. We have reviewed Petitioner's evidence and argument and determine Petitioner has provided sufficient argument and evidence, including declaratory testimony of Dr. Madisetti, that Gennaro teaches or suggests the limitations of claim elements 42[a] and [e]. *See supra, see also*, Pet. 48–50, 56–57.

For example, relying on the declaration testimony of Dr. Madisetti, Petitioner contends that, when a user requests to play a file (i.e., play a digital movie), Gennaro's receiver requests transmission of the digital stream comprising the video for that purpose, and that it would have been obvious to a POSITA that the *sender* of the digital stream would have received that request. *See id.* 48–49 (citing, *inter alia*, Ex. 1009, 1:28–29;

Ex. 1002 ¶ 141); *see also id.* at 49 (stating that it would have been obvious to a POSITA that the receiver would make similar requests for all file transmissions and that such requests would be received by the sender that sends the digital stream back to the receiver). Petitioner contends a POSITA would have understood that the sender grants the requests by providing the data streams that the receiver asked for. *See* Ex. 1002 ¶ 158 (citing Ex. 1002 ¶¶ 58–60); Pet. 56 (citing Ex. 1002 ¶ 158; Ex. 1008, 2:54, 2:65–67). Based on the current record, we are persuaded by these arguments of Petitioner that Gennaro teaches or suggests the limitations of claim elements 42[a] and [e].

Accordingly, Petitioner has shown a reasonable likelihood that it will prevail in establishing that claims 42 and 43 would have been obvious over Gennaro.

#### IV. CONCLUSION

For the foregoing reasons, we determine that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing at least one of the challenged claims of the '815 patent is unpatentable. Because Petitioner has satisfied the threshold for institution as to at least one claim, we institute *inter partes* review on all claims and all grounds raised in the Petition.

At this preliminary stage, we have not made a final determination with respect to the patentability of the challenged claims or any underlying factual and legal issues.

#### V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of all challenged claims on all asserted ground is instituted; and

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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, which commences on the entry date of this decision.



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