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Paper 13
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DOLBY LABORATORIES, INC.,
Petitioner,

v.

INTERTRUST TECHNOLOGIES CORPORATION,
Patent Owner.

IPR2020-00662
Patent 6,640,304 B2

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

OGDEN, *Administrative Patent Judge*.

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

I. INTRODUCTION

Petitioner Dolby Laboratories, Inc. ("Dolby") filed a Petition (Paper 2, "Pet.") under 35 U.S.C. §§ 311–319 requesting *inter partes* review of claim 24 of U.S. Patent No. 6,640,304 B2 (Ex. 1001, "the '304 patent"). Patent Owner Intertrust Technologies Corporation ("Intertrust") filed a Preliminary Response (Paper 6, "Prelim. Resp."). With our authorization (Paper 7), Dolby also filed a Reply (Paper 8, "Reply"), and Intertrust filed a Sur-Reply (Paper 9, "Sur-Reply") addressing the factors in *Apple, Inc. v. Fintiv*, Inc., IPR2020-00019, Paper 11 (Mar. 20, 2020) (precedential) ("*Fintiv I*").

We may institute 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." 35 U.S.C. § 314(a) (2018). Applying that standard, we institute an *inter partes* review of the '304 patent for the reasons explained below. This is a preliminary decision, and we will base our final written decision on the full trial record, including any timely response by Intertrust.

II. BACKGROUND

A. REAL PARTIES IN INTEREST

Dolby identifies Dolby Laboratories, Inc., a Delaware corporation, and Dolby Laboratories, Inc., a California corporation, as real parties in interest. Pet. 2. Dolby also identifies Cinemark Holdings, Inc., AMC Entertainment Holdings, Inc., and Regal Entertainment Group 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" these companies and Dolby. *Id.*

Intertrust identifies itself as the real party in interest. Paper 3, 1.

B. RELATED PROCEEDINGS

As a related matter, the parties identify *Dolby Laboratories, Inc. v. Intertrust Corp.*, No. 3:19-cv-03371 (N.D. Cal. filed June 13, 2019) ("California Action"). The parties also identify the following three cases in the Eastern District of Texas: *Intertrust Technologies Corp. v. AMC Entertainment Holdings, Inc.*, No. 2:19-cv-00265 (E.D. Tex. filed Aug. 7, 2019); *Intertrust Technologies Corp. v. Cinemark Holdings, Inc.*, No. 2:19-cv-00266 (E.D. Tex. filed Aug. 7, 2019); *Intertrust Technologies Corp. v. Regal Entertainment Group*, No. 2:19-cv-00267 (E.D. Tex. filed Aug. 7, 2019) (collectively, "Texas Actions"). Pet. 3; Paper 3, 1.

C. THE '304 PATENT (EX. 1003)

The '304 patent claims a priority date of February 13, 1995, which the parties do not contest at this stage of the proceeding. *See* Pet. 5 & n.1; Prelim. Resp. 8; *see also* Ex. 1001, code (63), 1:8–9.

The '304 patent describes systems and methods for securely managing electronic transactions and protecting the rights of various participants in such transactions. *See* Ex. 1001, code (57). The system includes a "virtual distribution environment (VDE)" that "may enforce a secure chain of handling and control" to control, meter, or monitor the use of electronically stored or disseminated information. *Id.*

The VDE "prevents use of protected information except as permitted by the 'rules and controls' (control information)" established for the VDE.

Ex. 1001, 56:57–59; *see also id.* Fig. 2. Such rules and controls may, for example, "grant specific individuals or classes of content users . . . 'permission' to use certain content. They may specify what kinds of content usage are permitted, and what kinds are not. They may specify how content usage is to be paid for and how much it costs." *Id.* at 56:60–64. They may also "require content usage information to be reported back to the distributor . . . or content creator." *Id.* at 56:65–67.

D. CHALLENGED CLAIMS AND GROUNDS

Claim 24, the sole challenged claim, is as follows:

> 24. A method for monitoring use of a digital file at a computing system, the method comprising:
> [a] receiving the digital file;
> [b] receiving a first entity's control information separately from the digital file;
> [c] using the first entity's control information to govern, at least in part, a use of the digital file at the computing system; and
> [d] reporting information relating to the use of the digital file to the first entity;
> [e] wherein at least one aspect of the computing system is designed to impede the ability of a user of the computing system to tamper with at least one aspect of the computing system's performance of one or more of said using and reporting steps.

Ex. 1001, 327:42–328:15 (Dolby's reference numbers added).

Dolby argues two grounds for *inter partes* review, as summarized in the following table:

Ground	Claim Challenged	35 U.S.C. §	Reference(s)/Basis
1	24	102(a)	Hornbuckle[1]
2	24	103(a)	Katznelson,[2] Narasimhalu[3]

Pet. 7.

The Petition also relies on the declaration of John R. Black, Jr., Ph.D. (Ex. 1002). Pet. 6. Prof. Black is an Associate Professor of Computer Science at the University of Colorado. Boulder. Ex. 1002 ¶ 4, App'x A (curriculum vitae).

III. DISCRETION TO DENY INSTITUTION UNDER § 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. Intri-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.* (quoting *General Plastic Indus. Co. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 at 16–17 (PTAB Sept. 6, 2017) (precedential in relevant part)).

[1] Hornbuckle, US 5,388,211 (issued Feb. 7, 1995) (Ex. 1007, "Hornbuckle").
[2] Katznelson, US 5,010,571 (issued Apr. 23, 1991) (Ex. 1005, "Katznelson").
[3] Narasimhalu et al., US 5,499,298 (issued Mar. 12, 1996) (Ex. 1004, "Narasimhalu").

"[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." *Fintiv I*, Paper 11 at 5. *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 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. 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." *Id.*

A. FACTUAL BACKGROUND

Dolby filed the California Action on June 13, 2019 against Intertrust, and Intertrust filed the Texas Actions on August 7, 2019 against three different parties (the "Texas Defendants"). Pet. 3; Prelim. Resp. 17–18.

Intertrust served its infringement contentions in the Texas Actions on February 27, 2020, and Dolby filed the present Petition on March 26, 2020. Reply 5; Pet. 57; Ex. 2018 (Intertrust's Infringement Contentions for the '304 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. Dolby 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) (Institution Decision) ("*Fintiv II*"). We do not speculate on how the presiding judge in the California Action would rule on a motion, if Dolby 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 or considered in either the California or the Texas Actions, this factor does not weigh either in favor of or against exercising our discretion to deny institution under § 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 DOLBY 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 10, 1. Although no trial date has been set for the California Action, both parties' Joint Case Management Conference Statement proposes that trial commence no later than October 2021. *See* Ex. 2009, 14; Prelim Resp. 29–30; Sur-Reply 3–4.

Intertrust asserts both Factors 2 and 5 weigh in favor of discretionary denial. Prelim. Resp. 28–32, 39–41; Sur-Reply 3–5, 8–9. Intertrust contends that the March 1, 2021[4] trial date in the Texas Actions, 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. 28–32; Sur-Reply 3–5; Paper 10. Intertrust further contends that, even though Dolby is not a party to the Texas Actions,

[4] 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. 29; Sur-Reply 3. 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 10. This Decision discusses the parties' arguments as if they refer to the updated March 1, 2021 trial date.

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 *Finitv* decisions do not support a fifth duplicative proceeding. Sur-Reply 3; Prelim. Resp. 29–30.

Intertrust contends the fact that Dolby is not a party to the Texas Actions is irrelevant to the Factor 5 analysis as Dolby's customers are parties in those actions, and argues that Dolby named the Texas Defendants as real parties in interest in its Petition. Sur-Reply 8. Intertrust also contends that, because Dolby 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, the California Action also supports weighing Factors 2 and 5 in favor of discretionary denial. *Id.* at 5, 8–9.

Dolby argues Factors 2 and 5 support institution. Regarding *Fintiv* Factor 2, Dolby 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, Dolby contends it is not a party to the Texas Actions and this factor also favors institution. *Id.* at 7–8.

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 Dolby, 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 is likely to issue in the present proceeding 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 Dolby is not a party to the Texas Actions. Contrary to Intertrust'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).

Intertrust contends Dolby is related to the Texas Defendants because the Texas Defendants are Dolby's customers and because Dolby has identified the Texas Defendants as real parties in interest in the present proceeding. Prelim. Resp. 39–40 (citing *Valve Corp. v Elec. Scripting Prods., Inc.*, IPR2019-00062, Paper 11 at 2 (PTAB Apr. 2, 2019)).

Based on the record before us, Dolby has not persuasively shown that Dolby is sufficiently related to the Texas Defendants so as to weigh in favor of exercising discretion to deny institution. Although Dolby has identified the Texas Defendants as real parties in interest in the present proceeding, Dolby states that it did so only "out of an abundance of caution" (Pet. 2) and

"to avoid unnecessary litigation at the PTAB" (Reply 7). Dolby contends the only relationship Dolby has with the Texas Defendants is that the defendants purchase Dolby's equipment in arm's-length business transactions. Reply 7. Additionally, there is nothing in the record to indicate that Dolby exerts any control over the Texas Actions or the Texas Defendants. The Texas Defendants are represented by separate counsel than Dolby, and, as Intertrust argued in its motion to dismiss the California Action, Dolby has not acknowledged any duty to indemnify the Texas Defendants. *See* Reply 7 (citing Ex. 1034, 10; Ex. 1035, 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, Intertrust has sought to distance Dolby from the concerns raised in the Texas Actions. According to Intertrust, "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. 1028, 1[5]; *see also* Reply 2–3.

Intertrust also cites to *Valve*, IPR2019-00062, Paper 11 at 2, to support its arguments that Dolby's pre-existing relationship to the Texas Defendants weighs against institution. *See* Prelim. Resp. 40. 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 Dolby has filed a petition challenging the '304 patent; the Texas Defendants have not.

[5] We reference the document's original page numbers.

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 under § 314(a).

D. FACTOR 3: INVESTMENT IN THE PARALLEL PROCEEDING BY THE COURT AND THE PARTIES

Intertrust contends there has been substantial investment in the Texas and California actions, thus Factor 3 supports a discretionary denial of institution. *See* Prelim. Resp. 32–35. For example, Intertrust asserts that in the Texas Actions, final invalidity and infringement contentions have been served already, 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. 32–34 (citing Exs. 2004, 2007, 2010, 2011, 2019).

Intertrust also contends that investment in the California Action includes service of Intertrust's invalidity contentions on Dolby 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. 34–35 (citing Exs. 2008, 2009, 2012). Intertrust 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 35.

We recognize that both parties have invested effort in the California Action, most notably service of invalidity contentions (Exs. 2012, 2014–2016), and that Intertrust has invested effort in the Texas Actions, which include detailed invalidity claim charts (Exs. 2010, 2013) 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 12) 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 12, 3. Regarding the California Action, we accept Dolby'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.

As part of our holistic analysis, we also consider the speed in which Dolby 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, Dolby acted diligently in filing the Petition on March 26, 2020, approximately one month after Intertrust served its infringement contentions identifying the asserted claims of the '304 patent. *See* Reply 2 (citing Ex. 1038 (Intertrust's Disclosure of Asserted Claims & Infringement Contentions"), 2). Because Dolby 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 parties and the court have invested effort in the California Action, and Intertrust and the court have invested effort in the Texas Actions, 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 Dolby filed its Petition after service of Intertrust's infringement contention, this factor does not weigh for or against the exercise of our discretion to deny institution under § 314(a).

E. FACTOR 4: OVERLAP BETWEEN ISSUES RAISED IN THE PETITION AND IN THE PARALLEL PROCEEDING

Intertrust contends that there is a "complete" overlap between the issues raised in the Petition and those in the Texas and California Actions. Prelim. Resp. 35–39; Sur-Reply 7–8.

Dolby contends 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. Reply 6. Dolby 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.*[6]

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.

[6] 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 12 App'x A, 3.

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 under § 314(a).

F. FACTOR 6: OTHER CIRCUMSTANCES THAT IMPACT THE BOARD'S EXERCISE OF DISCRETION, INCLUDING THE MERITS

Dolby contends that the strengths of the asserted grounds favor institution, that institution would provide an efficient alternative to Dolby 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.

Intertrust responds that the weakness in Dolby's asserted grounds weigh against institution and, because Dolby filed the California Action, the equities do not favor allowing Dolby to bring a duplicative challenge of the '304 patent. *See* Sur-Reply 9–10; Prelim. Resp. 41–42.

As discussed below, Dolby has met its burden of demonstrating a reasonable likelihood that it would prevail in showing that the challenged claim of the '304 patent is unpatentable. At this preliminary stage of the proceeding and on the record before us, Dolby's case appears reasonably persuasive on two independent prior art grounds including an anticipation ground, meaning that it has a strong case going forward. *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 Intertrust 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 Intertrust’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 35 U.S.C. § 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 under § 314(a) to deny institution of *inter partes* review.

IV. GROUNDS OF THE PETITION

For the reasons below, we determine that there is a reasonable likelihood that Dolby would prevail in showing that the only challenged claim is unpatentable under the grounds of the Petition. Before addressing those grounds in detail, we address the level of ordinary skill in the art, and whether we need to construe claim terms for our analysis.

A. LEVEL OF ORDINARY SKILL IN THE ART

The level of ordinary skill in the pertinent art at the time of the invention is one of the factual considerations relevant to obviousness. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). It is also relevant to how we construe the patent claims. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc). To assess the level of ordinary skill, we construct a hypothetical "person of ordinary skill in the art," from whose vantage point we assess obviousness and claim interpretation. *See In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998). This legal construct "presumes that all prior art references in the field of the invention are available to this hypothetical skilled artisan." *Id.* (citing *In re Carlson*, 983 F.2d 1032, 1038 (Fed. Cir. 1993)).

Relying on Prof. Black's testimony, Dolby argues that a person of ordinary skill in the art "would have been a person who has had a bachelor of science degree in computer science, computer engineering, or a related field, and approximately two years of professional experience or equivalent study in network and system security." Pet. 14–15 (citing Ex. 1002 ¶¶ 4–8, 25–30 (Prof. Black's testimony)).

Intertrust's articulation of the level of ordinary skill in the art "is essentially the same" as that of Dolby, except that Intertrust's articulation requires "three years of work or research experience in the fields of secure transactions and encryption," whereas "[Dolby's] description requires two years of work in the computer science field." Prelim. Resp. 17 (citing Pet. 14–15). Intertrust does not cite evidence, testimonial or otherwise, for its assertion. *See id.*

At this stage of the proceeding, Intertrust's articulation of the level of ordinary skill is based solely on attorney argument; therefore, we adopt Prof. Black's articulation of the level of ordinary skill, which we find sufficiently reasonable in light of the subject matter involved in the '304 patent. Nevertheless, our decision to institute would be the same under either articulation. If Intertrust presents testimonial or other evidence of the level of ordinary skill at trial, we will consider that evidence in light of the full trial record.

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) (2019). This includes "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." *Id.* We also consider "[a]ny prior claim construction determination concerning a term of the claim in a civil action . . . that is timely made of record" in this proceeding. *Id.* The ordinary and customary meaning of a claim term "is its meaning to the ordinary artisan after reading the entire patent," and "as of the effective filing date of the patent application." *Phillips*, 415 F.3d at 1313, 1321.

Dolby argues that we should construe the following three terms of claim 24: "control information," "receiving . . . control information separately from the digital file," and "impede the ability . . . to tamper with

at least one aspect of . . . said using and reporting steps." Pet. 15–18. We address each of these terms below.

1. "control information"

Dolby argues that we should construe "control information" to include "information, such as executable code or associated data, related to controlling use of a digital file." Pet. 15 (citing Ex. 1002 ¶¶ 22–24, 57–58). To support its proposed construction, Dolby points to a passage in the '304 patent stating that "VDEF load modules, associated data, and methods form a body of information that for the purposes of the present invention are called 'control information.'" *Id.* at 16 (footnote omitted) (quoting Ex. 1002, 18:56–62). Dolby also points to four examples of control information listed in the patent:

> Control information can determine, for example:
> (1) How and/or to whom electronic content can be provided, for example, how an electronic property can be distributed;
> (2) How one or more objects and/or properties, or portions of an object or property, can be directly used, such as decrypted, displayed, printed, etc;
> (3) How payment for usage of such content and/or content portions may or must be handled; and
> (4) How audit information about usage information related to at least a portion of a property should be collected, reported, and/or used.

Id. (quoting Ex. 1001, 46:42–55).

The Texas Defendants proposed the same construction, and made similar arguments, in the Texas Actions, but the district court rejected that construction. *See* Ex. 2007, 33–36. The court held that "the patents do not suggest that information simply 'related' to control is 'control information,' as [the Texas] Defendants propose. Rather, 'control information' is

something that can be enacted, information that is for controlling." *Id.* at 38. As examples, the court noted that the '304 patent included permission records, budgets (including "how much of the total information content . . . can be used and/or copied"), and "security related information such as scrambling and descrambling 'keys.'" *Id.* at 38–39 (quoting Ex. 1001, 59:35–65). According to the court, "[a]ll these examples of control information appear more than merely related to control, but actually are for control." *Id.* at 39.

On the other hand, the court held that a plain reading of claim 24 indicates that "control information" is "broader than simply specifying permitted or prohibited uses." Ex. 2007, 36. According to the court, the passage in the '304 patent stating that "VDEF load modules, associated data, and methods form a body of information that for the purposes of the present invention are called 'control information'" is "definitional, not exemplary. *Id.* at 38 (emphasis omitted) (quoting Ex. 1002, 18:56–62). Thus, control information includes "load modules," "associated data," and "methods." *Id.*

Thus, the court in the Texas Actions construed "control information" as follows: "information and/or programming controlling operations on or use of resources." Ex. 2007, 40. The parties agreed to this construction at the hearing without argument. *Id.* at 36.

This is essentially the same as a construction adopted years earlier in *Intertrust Technologies Corp. v. Microsoft Corp*, 275 F. Supp. 2d 1031, 1060 (N.D. Cal. 2003) (Ex. 2021) for patents in the same family.[7] In that case, the

[7] The *Microsoft* court construed the term "control" (as a noun), but held that "control is equivalent to control information." Ex. 2007, 34 n.9 (quoting *Microsoft*, 275 F. Supp. 2d at 1037, 1059–60)

court's construction was "[i]nformation and/or programming controlling operations on or use of resources (e.g., content) including (a) permitted, required, or prevented operations, (b) the nature or extent of such operations, or (c) the consequences of such operations." 275 F. Supp. 2d at 1060.

Although the construction in *Microsoft* preceded the Federal Circuit's en banc decision in *Phillips* that clarified the law on claim construction, we regard that construction to be equivalent to the construction in the Texas Actions. *See* Prelim. Resp. 20–21 (arguing that the Texas court's construction is simpler, but consistent). The only difference between the two constructions is that, in *Microsoft*, the construction includes a list of examples.

In the Preliminary Response, Intertrust argues that we should adopt the construction in the Texas Actions. *See* Prelim. Resp. 18–24. We agree, for the reasons given in the Texas court's Claim Construction Order (Ex. 2007). Therefore, for this decision we construe the term "control information" to mean "information and/or programming controlling operations on or use of resources."

2. "receiving . . . control information separately from the digital file"

Dolby argues that we should construe "receiving . . . control information separately from the digital file" to include "receiving a first entity's control information in a different package and/or via delivery at a different time, over a different path, or from a different source, from the digital file." Pet. 17 (citing Ex. 1002 ¶¶ 22–24, 59–61). To support its proposed construction, Dolby cites passages in the '304 patent describing packaging of electronic content and control information into the same or

separate containers, and delivered from separate locations, by different paths, by different parties, or at different times. *Id.* at 17–18 (citing Ex. 1001, 17:66–18:8, 132:35–42).

Intertrust points out that in the Texas Actions, the court adopted the parties' agreed construction of "receiving . . . separately" as meaning "receiving over different paths, or from different sources, or at different times." Prelim. Resp. 24 (citing Ex. 2001, 1; Ex. 2007, 12). We see no material difference between Dolby's proposed construction and the construction adopted by the district court in the Texas Actions, both of which find support in the '304 patent. Therefore, we adopt the Texas court's construction of "receiving . . . separately" as meaning "receiving over different paths, or from different sources, or at different times."

3. "impede the ability . . . to tamper with the at least one aspect of . . . said using and reporting steps"

Dolby does not propose an explicit construction for the term "impede the ability . . . to tamper with the at least one aspect of . . . said using and reporting steps." *See* Pet. 18. But Dolby argues the following: (1) that "tampering applies to any 'aspect' of" either the using or reporting steps; (2) that "[t]he 'using' step recites using the first entity's control information to govern, at least in part, a use of the digital file at the computing system"; and (3) that "the 'reporting' step recites 'reporting information relating to the use of the digital file to the first entity.'" *Id.* (citing Ex. 1002 ¶¶ 22–24, 62–63).

Intertrust argues that "construction of this phrase is not necessary to resolve the parties' controversy." Prelim. Resp. 25. We agree that no explicit construction of this phrase is necessary for our decision to institute. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013,

1017 (Fed. Cir. 2017) ("[W]e need only construe terms 'that are in controversy, and only to the extent necessary to resolve the controversy.'" (quoting *Vivid Techs., Inc. v. Am. Sci & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

To the extent that our decision otherwise involves interpreting claim language, we discuss that language below in our analysis of the claim limitations.

C. GROUND BASED ON HORNBUCKLE

Dolby alleges that claim 24 is unpatentable under 35 U.S.C. § 102(a) as anticipated by Hornbuckle. Pet. 7.

To establish anticipation, a petitioner must find each and every element in a claim, arranged as recited in the claim, in a single prior art reference. *See Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008). The limitations may be present in the reference "either explicitly or inherently." *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997). Further, an anticipating prior art reference must be enabling and must describe the claimed invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention. *See Helifix Ltd. v. Blok-Lok, Ltd.*, 208 F.3d 1339, 1346 (Fed. Cir. 2000); *In re Paulsen*, 30 F.3d 1475, 1479 (Fed. Cir. 1994).

Based on the preliminary record, we determine that Dolby is reasonably likely to prevail in showing that Hornbuckle anticipates claim 24, for the reasons below.

1. Overview of Hornbuckle

Hornbuckle describes "a system for renting computer software which derives use and billing information, prevents unauthorized use, maintains integrity of the software and controls related intercomputer communications." Ex. 1007, code (57). Hornbuckle's Figure 1, reproduced below, shows an example of this system:

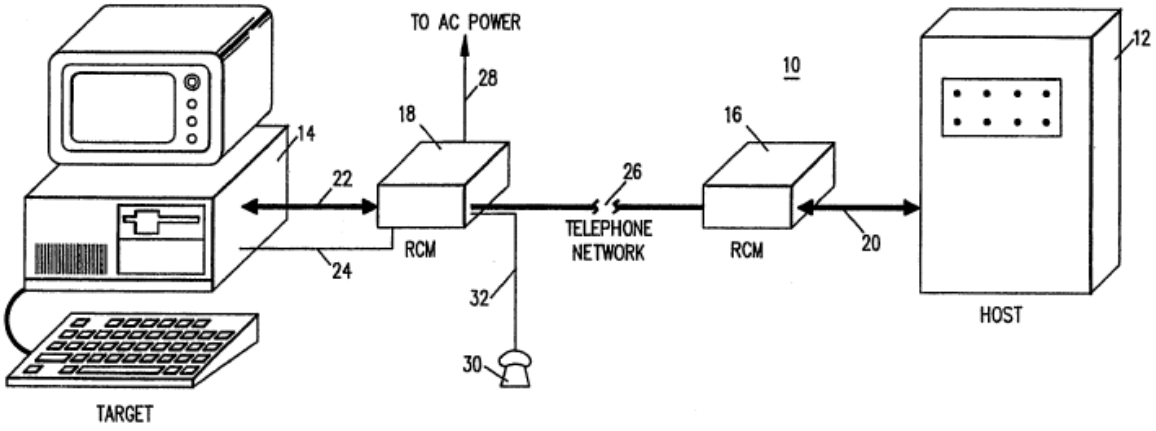

FIG. 1

Figure 1 depicts software rental system 10 comprising host computer 12, target computer 14, remote control modules ("RCMs") 16 and 18, each connected to host computer 12 and target computer 14, respectively via serial lines 20 and 22. *Id.* at 4:45–52. RCMs 16 and 18 communicate with each other over public switched telephone network 26. *Id.* at 4:57–58.

Host computer 12 can transmit software to target computer 14, can receive customer usage data from the target computer's RCM 18, and can perform various accounting and software rental business functions. Ex. 1007, 5:5–10. When host computer 12 transmits the software, it also sends an encrypted "key module" and an operating system patch ("OSP") module. *Id.* at 11:57–61. Alternatively, the key module, the OSP module, and the remaining unencrypted rental software "may be sent to the customer

on floppy disks or magnetic tape by mail or other delivery service." *Id.* at 11:61–64.

The OSP module modifies the operating system of target computer 14 to ensure the rental software's security. Ex. 1007, 11:35–38. When a user of target computer 14 runs the rented software, the OSP module "initiates decryption of the encrypted key module of the rental software package by . . . RCM 18, then loads the decrypted key module into the internal memory . . . of the target computer 14 for execution." *Id.* at 11:45–48. The OSP module also periodically "communicates with the RCM 18 to provide verification that it is still connected to the target computer 14 for security and accounting purposes." *Id.* at 11:49–53.

2. Comparing Claim 24 with Hornbuckle

(a) Preamble

The preamble recites "[a] method for monitoring use of a digital file at a computing system." Ex. 1001, 327:42–43. Dolby does not assert that the preamble is limiting, but to the extent it is, Dolby argues that Hornbuckle's system performs such a method, and monitors use of digital files through the target computer's RCM. Pet. 25–26 & n.5 (citing Ex. 1001, code (57), 1:15–16, 1:24–28, 3:31–36; Ex. 1002 ¶¶ 79–80, 97).

In its Preliminary Response, Intertrust does not contest Dolby's assertions regarding the preamble. We find Dolby's uncontested argument sufficiently persuasive on the present record, so for this decision, we do not need to decide whether the preamble is limiting. *See Nidec v. Zhongshan*, 868 F.3d at 1017.

(b) Limitation 24a

Limitation 24a recites "receiving the digital file." Ex. 1001, 328:1. Dolby points to passages in Hornbuckle describing how Hornbuckle's host computer 12 transmits software to target computer 14 as disclosing this limitation. Pet. 26–27 (citing Ex. 1001, 5:5–10, 10:27–42, 11:38–45, 11:64–12:2; Ex. 1002 ¶¶ 81–82, 97).

Intertrust does not contest Dolby's contentions regarding limitation 24b in its Preliminary Response. We find Dolby's arguments and supporting testimonial evidence sufficiently persuasive on the present record.

(c) Limitations 24b and 24c

Limitation 24b recites "receiving a first entity's control information separately from the digital file." Ex. 1001, 328:2–3. Limitation 24c recites "using the first entity's control information to govern, at least in part, a use of the digital file at the computing system." Ex. 1001, 328:5–7.

Dolby contends that, in Hornbuckle, the OSP module and associated encryption key are the "control information" of limitations 24b and 24c. Pet. 27, 30. As we discuss above, we construe "control information" to mean "information and/or programming controlling operations on or use of resources." *See supra* part IV.B.1. For the reasons below, we determine that Dolby has made a sufficient showing at this stage that either the OSP module or the encryption key may be considered control information under that construction.

(1) Whether the OSP module is control information

Dolby contends that "[t]he OSP module is control information that, when activated, initiates decryption by fetching the encrypted key module and sending it to data encryption/decryption module 70 of RCM 18, where the key module is decrypted by the encryption key." *Id.* at 22 (citing Ex. 1001, 12:64–13:3). Then "the OSP module loads the decrypted key module into the internal memory of the target computer 14 for execution." *Id.* (citing Ex. 1001, 11:45–48, 13:4–6). According to Dolby, "when execution of the rental program is complete, the OSP module erases the rental program including the key module from the [random access memory] of target computer 14, and notifies RCM 18 that the period of use or rental period has stopped." *Id.* at 23 (citing Ex. 1001, 13:6–20; Ex. 1002 ¶¶ 71–74).

Intertrust disagrees that Hornbuckle's OSP module is control information. Prelim. Resp. 43. Intertrust essentially agrees with Dolby's factual narrative above as to the functions that the OSP module performs. *See id.* at 43–44. But according to Intertrust, none of these functions qualify the OSP module as control information, nor do they "govern" the use of the digital file. *See id.* at 44.

In particular, Intertrust contends that the OSP module does not "grant specific individuals . . . 'permission' to use certain content," "specify what kinds of content usage are permitted, and what kinds are not," or "specify how content usage is to be paid for and how much it costs." Prelim. Resp. 44 (quoting Ex. 1001, 56:59–64) (citing Ex. 1001, 32:56–61, 34:18–32, 54:5–49, 56:8–11). Intertrust argues that the OSP module "does not place any limit

on the length of time a user can rent the software." *Id.* Thus, according to Intertrust, the OSP module functions "are not 'control information' because they do not 'control operations on or use of' the rental software." *Id.*

We disagree with this conclusion based on the existing record, because the specific functions of control information that Intertrust cites in the '304 patent are merely examples, and our construction of the term "control information" does not require them. *See Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1346–47 (Fed. Cir. 2015) ("This court has repeatedly 'cautioned against limiting the claimed invention to preferred embodiments or specific examples in the specification.'" (quoting *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1328 (Fed. Cir. 2002))).

Next, Intertrust argues that the functions of the OSP module are inconsistent with four explicit examples of control information disclosed in the '304 patent. Prelim. Resp. 44–45 (citing Ex. 1001, 46:44–45). One of these examples is "[h]ow one or more objects and/or properties, or portions of an object or property, can be directly used, such as decrypted, displayed, printed, etc." *Id.* (quoting Ex. 1001, 46:47–49). According to Intertrust, Hornbuckle does not specify "*how* objects can be decrypted." *Id.*

Intertrust's argument in this regard appears to misread the text of the '304 patent, which states that control information indicates how a digital object "can be directly used, such as decrypted." Ex. 1001, 46:47–49. In other words, decryption is an example of how the digital object can be directly used. Dolby has sufficiently shown at this stage that Hornbuckle's OSP module controls the use, by decryption, of the digital software package. *See* Pet. 21–23, 30–31; *see also* Ex. 1001, 11:45–49 ("The OSP module initiates decryption of the encrypted key module of the rental software

package by module 70 of RCM 18, then loads the decrypted key module into the internal memory . . . of the target computer 14 for execution.").

Next, Intertrust argues that "Hornbuckle's OSP is system-level programming that informs *other components* to perform the functions the Petition relies on." Prelim. Resp. 45. For example, Intertrust points out that the OSP module initiates decryption by having module 70 of RCM 18 perform the actual decryption. *See id.* Similarly, Intertrust points out that the OSP module does not itself start and stop the real-time timer for calculating usage time, but instead notifies RCM 18 when to do so. *Id.* at 45–46. Thus, according to Intertrust, "[t]he OSP itself does not represent 'control information' that actually controls how the rental software's 'key module' is to be decrypted or used, or how usage information should be collected, stored, charged or reported." *Id.* at 46.

We do not find that argument persuasive on the present record. A module may "control" use of the digital file without actually implementing all the specific operations under its control. This is consistent with the Texas district court's holding that "control information" includes not just modules and methods, but "associated data" used for control. *See* Ex. 2007, 38 (citing Ex. 1001, 18: (defining "control information" to include "load modules, associated data, and methods")). The associated data is *itself* control information, even though the data itself does not directly implement the functions being controlled.

Thus, based on the evidence and arguments in the preliminary record, Dolby has sufficiently shown that Hornbuckle's OSP module functions as "control information" as we have construed that term in light of the '304 patent.

(2) Whether the encryption key is control information

Like the OSP module, Dolby also argues that Hornbuckle's encryption key is control information. *See* Pet. 24, 27, 30. Dolby contends that "[t]he rental software package will only run on the particular target computer 14 with an encryption key corresponding to the encryption key used by host computer 12 to encrypt the key module." Pet. 21 (citing Ex. 1001, 12:36–43). Thus, "the rental software cannot be used without the encryption key." *Id.* at 22 (citing Ex. 1001, 12:25–29).

Dolby also contends that, in the opening Claim Construction Brief in the *Microsoft* case, Intertrust "stated that a key is an example of control information." Pet. 27 (citing Ex. 1003, 1369–70 ("Control information can consist of either programming (e.g., load modules) or data. *See, e.g.*, . . . 8(F) (a key is control information) . . . .")).

Intertrust disputes that contention, asserting that it "only argued that control information could be data (not just an executable), and an example of such data included 'associated critical key and/or other control information.'" Prelim. Resp. 48 n.5; *accord id.* at 22. According to Intertrust, the statement in the Claim Construction Brief was imprecise, and "should have read '(key *information* is control information).'" *Id.* at 23 (emphasis added). Intertrust distinguishes a "key" from "key information"; for example, key information would be "an expiration date/time associated with a key," but not the key itself. *Id.* Thus, "while 'control information' includes at least some types of key information," Intertrust argues that "it does not include a simple cryptographic key." *Id.*

The Texas district court addressed Intertrust's alleged admission in its Claim Construction Order, stating, "Fairly read, [Intertrust] did not represent that any key is control information, rather it represented that 'a key' is control information, referring back to the 'associated critical key' described in [a related patent]." Ex. 2007, 39–40; *see also* Ex. 1001, 172:13–14 (corresponding language in the '304 patent referring to an "associated critical key and/or other control information"). Thus, the Texas court stated that it "will not rule as a matter of claim construction that all keys are control information." *Id.* at 40.

We agree with the Texas court that a fair reading of Intertrust's statement in the Opening Claim Construction Brief is that the particular "associated critical key" mentioned in the '304 patent is an example of control information. However, even if we were to accept that Intertrust's admission was unintentional, the preliminary evidence of record suggests that a person of ordinary skill in the art would have interpreted the phrase "associated critical key and/or other control information" in the '304 patent to indicate that, in at least some circumstances, an encryption key itself can be control information.

Intertrust does not explain why the "associated critical key" mentioned in the '304 patent differs from Hornbuckle's encryption key, and we see no material difference, based on the preliminary record. The '304 patent describes "scrambling and descrambling 'keys'" as part of the "rules and controls" governing use of the digital content. Ex. 1001, 59:34–35, 59:50–52, Fig. 5B. The '304 patent contemplates using a broad variety of keys. *See, e.g.*, *id.* at 67:55–68:35; id. at 121:60–123:16.

Intertrust argues that "Hornbuckle's encryption key does not, for example, identify specific individuals who have permission to use certain content, what kinds of content usage are or are not permitted, or how content usage is to be paid for and how much it costs." Prelim. Resp. 48. But it does not appear that the encryption keys described in the '304 patent perform these functions either, and these functions are not required in our construction of the term "control information." In both Hornbuckle and the '304 patent, an encryption key is part of the enactable information for controlling use of the digital file.

Thus, based on the preliminary record, Dolby has sufficiently shown that Hornbuckle's encryption key is "control information" as we have construed that term.

(3) Hornbuckle's system meets limitations 24b and 24c.

Based on the premise that Hornbuckle's OSP module and encryption key are control information, Dolby argues that Hornbuckle's system meets limitations 24b and 24c. *See* Pet. 21–23, 27–32.

Limitation 24b recites "receiving a first entity's control information separately from the digital file." Ex. 1001, 328:2–3. Dolby contends that any of the components of the rental package may be sent to the customer by mail on electronic media, that target computer 14 may download the OSP module before (and thus "separately from") downloading the rental software, and that the encryption key may be transmitted separately. Pet. 28, 30 (citing Ex. 1001, 11:57–12:2, 13:35–40, 13:53–58, 13:62–64). Intertrust does not contest these arguments, and we find them sufficiently persuasive at this preliminary stage.

Limitation 24c recites "using the first entity's control information to govern, at least in part, a use of the digital file at the computing system." Ex. 1001, 328:5–7. Dolby contends that the OSP module and encryption key meet this limitation for essentially the same reasons that Dolby also contends these items are control information: "e.g., the digital file cannot be accessed without a corresponding encryption key and if the OSP module does not initiate decryption." Pet. 24; *see also id.* at 30–32 (claim chart).

In response, Intertrust argues that Hornbuckle's "OSP carries out its functions without regard to the specific rental software it processes. . . . Therefore, the OSP cannot and does not represent control information that 'governs . . . a use' of any one particular software rental." Prelim. Resp. 46. For example, Intertrust contends that the OSP module "does not identify what specific individuals have permission to use a particular piece of rental software, what kinds of content usage are or are not permitted, or how usage for the rental software is to be paid for and how much it costs." *Id.* (citing Ex. 1001, 56:59–64).

We do not find this argument persuasive on the preliminary record. In Hornbuckle, the OSP module initiates decryption and loads the decrypted key module into internal memory for execution of each specific software rental package it processes. *See* Ex. 1007, 11:45–49. The encryption key is also critical to unlocking the key module and allowing use of the rental software. *See id.* at 12:25–29, 12:36–43. Claim 24 only requires that the control information "govern, at least in part, a use of the digital file," not that it specifically identifies individuals, content types, or payment schemes.

Thus, considering the preliminary evidence, we find Dolby's arguments at this stage sufficiently persuasive with respect to limitations 24b and 24c.

(d) Limitation 24d

Limitation 24d recites "reporting information relating to the use of the digital file to the first entity." Ex. 1001, 328:8–9. Dolby contends that Hornbuckle discloses this limitation because its system records "[t]he elapsed time between the starting and stopping of the rental program, as well as the time and date information" in "RCM 18 for subsequent offline processing." Pet. 23 (citing Ex. 1007, 13:20–23). According to Dolby, RCM 18 uploads this information to host computer 12. *Id.* (citing Ex. 1007, 3:33–36, 6:21–29, 9:25–26; Ex. 1002 ¶ 75).

Intertrust does not contest these arguments, and we find Dolby's arguments sufficiently persuasive at this preliminary stage with respect to limitation 24d.

(e) Limitation 24e

Limitation 24e recites "wherein at least one aspect of the computing system is designed to impede the ability of a user of the computing system to tamper with at least one aspect of the computing system's performance of one or more of said using and reporting steps." Ex. 1001, 328:10–15.

Dolby argues that Hornbuckle discloses this limitation because its encryption key is inaccessible to the user and, thus, "the user's ability to tamper with the encryption key, which is used in governing the use of the rental software, is impeded." Pet. 23 (citing Ex. 1007, 12:36–37). Dolby also contends that RCM 18 will destroy the encryption key if anyone tampers

with RCM 18, and the OSP module will erase the software from target computer 14 if it is disconnected from RCM 18. *Id.* at 23–24 (citing Ex. 1007, 12:23–29, 13:34–44, 14:1–8). Thus, "the user is prevented from using, stealing, copying, vandalizing, . . . modifying the software, and . . . circumventing the accounting of the rental usage." *Id.* at 24 (citing Ex. 1007, 12:25–29, 13:34–44).

Intertrust does not contest these arguments, and considering the preliminary evidence, we find Dolby's arguments sufficiently persuasive with respect to limitation 24e.

3. Preliminary Determination

On the preliminary evidence, Dolby has sufficiently shown that Hornbuckle discloses each limitation identically as recited in claim 24. Therefore, we determine that Dolby is reasonably likely on the present record to prevail in showing that claim 24 is unpatentable as anticipated by Hornbuckle.

D. GROUND BASED ON KATZNELSON AND NARASIMHALU

Because Dolby has shown a reasonable likelihood of prevailing on its ground based on anticipation by Hornbuckle, we will institute on both grounds raised in the Petition, including the ground based on obviousness over Katznelson and Narashimalu. *See SAS v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018); *AC Techs. S.A. v. Amazon.com, Inc.*, 912 F.3d 1358, 1364 (Fed. Cir. 2019) ("[I]f the Board institutes an IPR, it must . . . address all grounds of unpatentability raised by the petitioner.").

In addition, based on our view of the preliminary evidence, Dolby has made a credible presentation of evidence with respect to its ground

challenging claim 24 as unpatentable for obviousness over Katznelson and Narasimhalu. Pet. 7.

A claim is unpatentable under § 103 for obviousness 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). A successful petition must "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) (citing *KSR*, 550 U.S. at 418); *see also* 35 U.S.C. § 322(a)(3); 37 C.F.R. §§ 42.22(a)(2), 42.104(b)(4) (2019). When a ground in a petition is based on a combination of references, we consider "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. 2006)).

We base our obviousness inquiry on factual considerations 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) any objective indicia of obviousness or non-obviousness that may be in evidence. *See Graham*, 383 U.S. at 17–18.

Based on these factors,[8] we consider Dolby's arguments that claim 24 is obvious over Katznelson and Narasimhalu to be reasonably persuasive at this stage, for the reasons below.

[8] At this stage, neither party has presented evidence of objective indicia of obviousness or non-obviousness, so this does not factor into our decision.

1. Overview of Katznelson

Katznelson describes a "system for controlling and accounting for retrieval of data from a memory containing an encrypted data file from which retrieval must be authorized." Ex. 1005, 1:13–16. The system includes "an encryption key for enabling retrieval of the data and a credit signal for use in limiting the amount of data to be retrieved from the file." *Id.* at 1:17–20.

Figure 2, reproduced below, illustrates a content retrieval terminal:

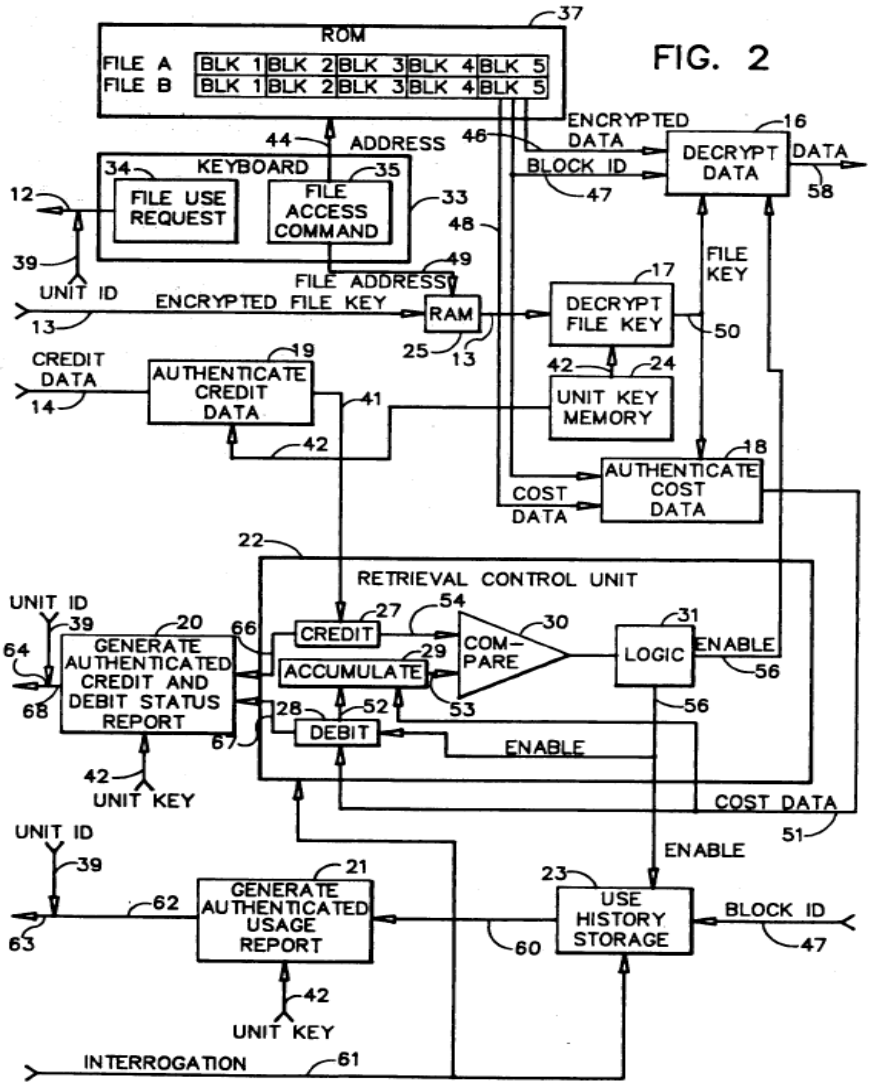

Figure 2 is "a functional block diagram of a customer data retrieval terminal." Ex. 1005, 1:38–39. Loaded in the terminal is read only memory (ROM) 37, which stores the encrypted data files (e.g., Files A and B). *Id.* at 3:6–9. Each data file contains several encrypted data blocks, each of which includes "authenticated cost data [that] indicates the cost associated with retrieving the given encrypted block of data." *Id.* at 3:9–20. The storage medium for the data can also be a CD-ROM. *See id.* at 9:3–9, Fig. 6.

The retrieval terminal contains keyboard 33, through which the user sends file use request signal 12 over a telephone line to a separate authorization and key distribution terminal. Ex. 1005, 2:3–15, 3:20–26. This authorization and key distribution terminal responds to file use request signal 12 by sending back to the retrieval terminal encrypted file key 13 and authenticated credit data signal 14. *Id.* at 3:26–35. Each retrieval terminal has a unique unit key 42, stored in unit key memory 24, which is used to decrypt file key 13 and to authenticate credit data signal 14. *Id.* at 2:48–49, 3:40–45. Once authenticated, credit data signal 14 is stored in credit register 27 of retrieval control unit 22. *Id.* at 3:45–46.

Credit data signal 14 "indicates an amount of credit to be extended to the customer terminal . . . for retrieval of data from the file identified in the file use request signal 12." Ex. 1005, 2:35–38. In retrieval control unit 22, credit signal 14 (stored in register 27) is compared with authenticated cost data signals 51 (from each of the data file blocks) "to determine whether the customer terminal . . . has been credited with sufficient credit to authorize retrieval of data from the requested file." *Id.* at 4:30–33. "When the compensation indicates that there is sufficient accumulated credit to authorize such retrieval," retrieval control unit 22 generates enable signal 56,

which allows the retrieval terminal to decrypt the file data in decryption unit 16. *Id.* at 4:33–37, 4:44–45.

The retrieval terminal also has facilities for generating authenticated usage reports 62 and authenticated credit and debit status reports 68. *See* Ex. 1005, 4:65–5:35.

2. Overview of Narasimhalu

Narasimhalu describes "a tamper-proof controlled information access device." Ex. 1004, code (57). Figure 6, reproduced below, is an example:

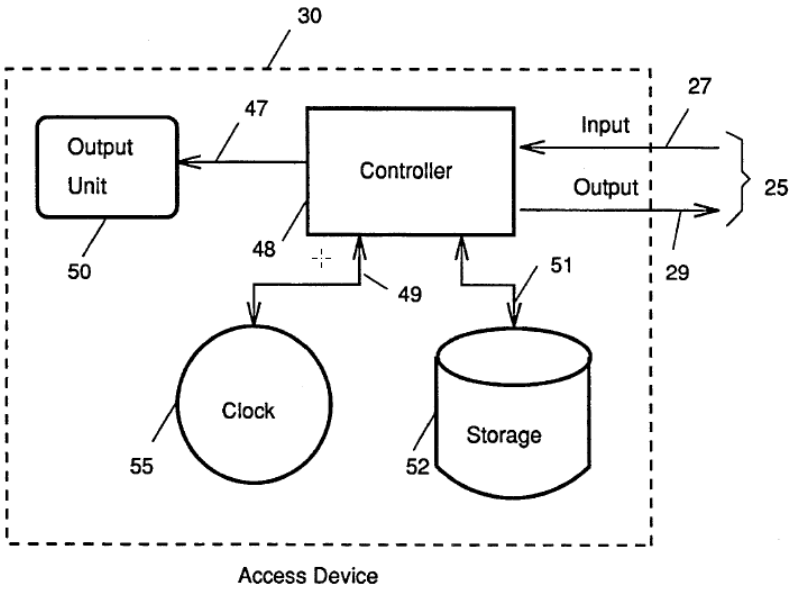

Figure 6

Figure 6 of Narasimhalu depicts Information Consumer 30, which includes controller 48, storage 52, clock 55, and output unit 50. *Id.* at 8:38–53. Controller 48 controls the flow of information through input channel 27 and output channel 29. *Id.* at 8:40–42, 8:53–55. "Preferably, the various channels coupled to the Controllers 48 are tamper-proof. This will make it impossible for users to tap into the clear channel 47, to access the Controller 48, to alter

the value of the memory storage 52, or to change the value of the clock 55." *Id.* at 8:55–59.

3. Reason to Combine Katznelson and Narasimhalu

Dolby argues that a person of ordinary skill in the art would have had reason to "modify Katznelson's system to include a tamper-proof device for enclosing controllers, memories, clocks, and other circuitry in a secure environment, as taught by Narasimhalu, so that a user is impeded from tampering with aspects of controlling and using the digital file." Pet. 42 (emphasis omitted) (citing Ex. 1004, 7:3–6, 8:55–59). Noting that Katznelson discloses secure memory storing a unit key, but not securing other aspects of its system, Dolby argues that a person of ordinary skill "would have been motivated to make additional circuitry and transmission channels tamper-proof, including those used to decrypt files and govern use of the files, such as Katznelson's transmission channels and processing circuitry used with respect to the credit and cost signals." *Id.* (emphasis omitted). In addition, Dolby argues that a skilled artisan would have expected success in this combination because there were several other known successful ways (including in Hornbuckle) to implement a tamper-proof device. *Id.* at 42–43 (citing Ex. 1006, 3:33–38, 4:5–12, 6:12–44; Ex. 1007; Ex. 1002 ¶¶ 38–42).

Intertrust does not contest these arguments in its Preliminary Response. We find Dolby's asserted reason to combine Katznelson and Narasimhalu reasonably persuasive on the present record.

4. Comparing Claim 24 with Katznelson and Narasimhalu

Dolby provides an overview and claim charts comparing limitations 24a–24e with the teachings in Katznelson and Narasimhalu. Pet. 35–54. We find this comparison reasonably persuasive on the present record.

In particular, Dolby identifies Katznelson's credit data signal 14 as the "control information" recited in limitations 24b and 24c. *See* Pet. 39. According to Dolby, Katznelson's credit data signal 14 "indicates how the digital file may be accessed." Pet. 39. Also, Katznelson's "[d]ata decryption unit 16 is only permitted to decrypt the encrypted data 46 if sufficient credit exists to cover the cost of retrieving a requested file." *Id.* at 37 (emphasis omitted) (citing Ex. 1005, 4:11–43). "Thus, the customer terminal limits the amount of data retrieved based on the credit data signal 14." *Id.* (emphasis omitted) (citing Ex. 1005, code (57), 1:16–22, 2:35–38); *see also* Pet. 46–50 (citing Ex. 1005, code (57), 1:16–20, 1:59–2:6, 2:28–38, 3:45–51, 4:26–37, 9:3–14, Figs. 2, 6; Black ¶¶ 130–134, 141).

Intertrust contests Dolby's arguments with respect to limitations 24b and 24c, and argues that Dolby has not sufficiently explained why Katznelson's credit data signal 14 is "control information" under our construction, and why it "governs" the use of the digital file. Prelim. Resp. 49.

First, Intertrust argues that Dolby has not shown that Katznelson's credit data signal 14 grants any type of "'permission[s],' much less a 'permission to use the requested file.'" Prelim. Resp. 49 (alteration in original) (citing Pet. 46–49). This is not persuasive on the present record, because our construction of "control information" does not require that control information provide any type of permission, so long as it is

"information and/or programming controlling operations on or use of resources." *See supra* part IV.B.1.

Second, Intertrust argues that Katznelson's credit signal 14 is not "control information" because it is "simply '**an amount of credit**'—essentially money—that, if authenticated is applied to the customer data retrieval terminal's credit register 27 to be later used to pay for data retrieval of an encrypted file." Prelim. Resp. 50 (citing Ex. 1005, 2:35–38, 3:37–51). Thus, according to Intertrust, "[t]he credit amount included in credit data signal 14 [does not] control[] operations on or use of the encrypted content. Instead, this credit merely serves to facilitate payment, if needed at all, for the encrypted content." *Id.*[9] Intertrust analogizes credit signal 14 to "auto-depositing of a person's income tax refund into their checking account," which is a credit, but does not "specif[y] one or more permitted uses of any item (*e.g.*, a movie rental) the person subsequently purchased using funds from that account." *Id.* at 50–51.

On the present record, this argument is not persuasive, because Katznelson's credit signal 14 is more than just an amount of credit. Based on the preliminary record, credit signal 14 is also enactable data that the retrieval terminal uses, by comparing it with cost data 51, to determine whether to allow decryption unit 16 to decrypt the digital file.

[9] Intertrust argues that it is Katznelson's authorization and key distribution terminal—a separate device—that determines whether the retrieval terminal is eligible to access encrypted data files. *Id.* at 50–51 n.7 (citing Ex. 1005, 2:7–26). While the authorization and key distribution terminal generates credit signal 14, we are not persuaded that this changes the nature of credit signal 14 as control information.

Next, Intertrust argues that "Katznelson does not teach that the amount of credit that credit data signal 14 provides must be sufficient *on its own* to pay for access to encrypted file 46." Prelim. Resp. 52. Intertrust argues that Katznelson's credit register 27 may already contain funds before any additional funds are added from credit signal 14, so these funds alone may be sufficient to pay for using a digital file. *See id.* at 51–52. Similarly, Intertrust argues that "cost balances from prior transactions present in debt register 28 may prevent data retrieval authorization." *Id.* at 52.

This argument is not persuasive at this stage, because the preliminary record suggests that a person of ordinary skill in the art would have understood that, if there is no pre-existing credit or debit before Katznelson's retrieval terminal receives credit signal 14, compare unit 30 will compare the credit signal directly to accumulated cost data 51. *See* Ex. 1005, 4:20–43, Fig. 2. Also, our construction of "control information" does not require that any particular control information be responsible, independently, for authorizing use of the digital file, so long as the data is for controlling use of the digital file. *See* Ex. 2007, 38 ("'[C]ontrol information' is something that can be enacted, information that is for controlling.").

Next, Intertrust argues that Dolby "does not cite to any portion of the '304 patent specification that describes control information as simply credit (*e.g.*, money, funds, etc.) to purchase access to protected content." Prelim. Resp. 53. Also, Intertrust argues that "Katznelson's credit data signal 14 does not specify[] permissions to specific individuals for use of content; what kinds of content usage are permitted; or *how* content usage is to be paid for or *how much* it costs." *Id.*

But our construction of "control information" does not preclude credit from being control information, and does not require that control information specify any particular individuals, content types, or payment schemes. Also, the '304 patent contemplates that "rules and controls," may include "budgets," which "can specify, for example, how much of the total information content . . . can be used and/or copied." Ex. 1001, 59:38, 56–58. This appears to be at least analogous to the credit amount represented in Katznelson's credit signal 14.

In addition to arguing that Katznelson's credit signal 14 is not "control information," Intertrust argues in the context of limitation 24c that the signal does not "govern" the use of the digital file. According to Intertrust, "the credit data signal merely serves to facilitate payment, if at all, for the encrypted data file, not *govern* its use." Prelim. Resp. 54. While Intertrust acknowledges that "the amount of available funds necessarily limits the number of items that can be purchased," Intertrust contends that this "does not transform money into 'control information' that *governs* use of the items purchased or not purchased." *Id.* at 55.

Intertrust further argues, as with limitation 24b, that Katznelson's credit signal 14 does not "directly pay for any one particular data file to be decrypted and used," and that it does not act *alone* to govern use of a digital file. *Id.* Intertrust points out that other elements of Katznelson's retrieval terminal are hard-coded into the terminal, and cannot be said to have been "receiv[ed] . . . separately from the digital file" as recited in claim 24. *See id.* at 56–58.

But limitation 24c only requires that the control information "govern,[10] *at least in part*, the use of the digital file." Ex. 1001, 328:5–6 (emphasis added). The plain language of the limitation suggests that any particular item of control information need not alone, or independently, govern the use of the digital file. Thus, it would be consistent with the language of claim 24 to govern use of the digital file using both (1) control information that is received separately from the digital file and (2) hard-wired elements of the system which are not received separately from the digital file.

For the above reasons, we consider Dolby's arguments with respect to ground based on obviousness over Katznelson and Narashimalu to be reasonably persuasive at this preliminary stage.

E. CONCLUSION

Based on the evidence available on the preliminary record, Dolby has demonstrated a reasonable likelihood of success in showing that the only challenged claim of the '304 patent is unpatentable based on at least one of the grounds raised in the Petition.

[10] Although neither party proposes a construction for the word "govern" at this stage, passages in the '304 patent suggest that it relates to the function of "control information" in controlling operations on or use of resources. *See, e.g.*, Ex. 1001, 15:66–67, 33:48–52, 64:9–16, 77:44–48, 79:4–6, 130:57–61, 142:20–22, 153:45–47, 162:17–20, 175:60–176:2, 176:57–64, 214:27–31, 245:8–9, 245:23–27, 249:4–6, 261:11–16, 266:40–43, 277:58–59, 278:24–28, 284:28–30, 292:66–293:6, 301:9–12, 306:38–44, 313:56–61. The parties may wish to present arguments and evidence about this term at trial.

V. ORDER

In consideration of the foregoing, it is

ORDERED that, under 35 U.S.C. § 314(a), an *inter partes* review of claim 24 of the '304 patent is instituted with respect to all the grounds set forth in the Petition; and

FURTHER ORDERED that under 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, an *inter partes* review of the '304 patent commences on the entry date of this Decision, and notice is hereby given of the institution of a trial.

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