

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

STINGRAY GROUP INC. AND STINGRAY MUSIC USA, INC.,
Petitioner,

v.

EDWIN A. HERNANDEZ-MONDRAGON,
Patent Owner.

IPR2025-00351
Patent 11,140,441 B2

Before BETH Z. SHAW, JASON M. REPKO, and BRIAN P. MURPHY,
Administrative Patent Judges.

SHAW, *Administrative Patent Judge.*

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

I. INTRODUCTION

Stingray Group Inc. and Stingray Music USA, Inc. (“Petitioner”) filed a Petition pursuant to 35 U.S.C. § 311 requesting institution of *inter partes* review of claims 1–26 of U.S. Patent No. 11,140,441 (Ex. 1001; “the ’441 patent”). Paper 2 (“Pet.”). Edwin A. Hernandez-Mondragon (“Patent Owner”) timely filed a Patent Owner Preliminary Response. Paper 7 (“Prelim. Resp.”). We authorized Petitioner to file a Preliminary Reply to address Patent Owner’s arguments about discretionary denial. Paper 10 (“Prelim. Reply”). We authorized Patent Owner to file a Preliminary Sur-reply. Paper 11 (“Prelim. Sur-reply”). Apart from the Preliminary Reply and Sur-reply, we authorized additional briefing to address new developments in the parallel litigation. Petitioner filed a brief. *See* Paper 12 (“Pet. Brief”). Patent Owner did not.

To institute an *inter partes* review, we must determine “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). The Board, however, has discretion to deny a petition even when a petitioner meets that threshold. *Id.*; *see, e.g., Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2140 (2016) (“[T]he agency’s decision to deny a petition is a matter committed to the Patent Office’s discretion.”).

For the reasons that follow, we grant institution of *inter partes* review.

A. Related Matters

According to the parties, the challenged patent has been asserted in *Hernandez v. Stingray Group, Inc.*, No. 1:24-cv-21226 (S.D. Fla. Apr. 2, 2024). Pet. 5; Paper 4, 2 (Mandatory Notices).

B. The '441 Patent

The '441 patent, titled “Method, System, and Apparatus for Multimedia Content Delivery to Cable TV and Satellite Operators,” is directed to delivering multimedia content from the cloud to cable operators. Ex. 1001, Abstr. A “custom UI can include JavaScript, CSS, and HTML content files that can be rendered using a browser using WebKit (e.g. PhantomJS or Safari) or any other browser-rendering engine compatible with HTML4/5 or any future HTML version.” Ex. 1001, 7:5-7:9. A cable or satellite provider can request a media stream from a cloud service for playback on a broadcast-media channel. *Id.* at 2:50–53. Before providing the media stream, the system generates multimedia files in a format that is compatible with the content provider. *Id.* at 2:64–66. To create the file, the system can generate a sequence of screen captures of a webpage. *Id.* at 7:23–29. When all the screens are captured, the resulting video file can be merged with the original file. *Id.* at 7:29–32.

C. Illustrative Claim

Independent claims 1, 10, and 25, and dependent claims 2–9 and 11–24, and 26 are the challenged claims. Claims 1 and 10, reproduced below with Petitioner’s identifiers for the claim limitations in bold (*see* Pet. 11–28, viii, ix), illustrate the claimed subject matter:

[Preamble 1] A computer-implemented method, comprising:

[1a] creating a plurality of multimedia assets at a caching unit,
for each one of the plurality of multimedia assets:

[1b] determining that there is sufficient storage space for the
multimedia asset at the caching unit;

[1c] generating a channel identifier for the multimedia asset;

[1d] retrieving from a cloud service a plurality of media files to be included in the multimedia asset including a media identifier for each one of the media files;

[1e] for each one of the media files, creating a custom hypertext transfer markup language (HTML) user interface that includes video;

[1f] encoding each of the media files and encapsulating them together using an MPEG transport stream format;

[1g] storing each one of the multimedia assets at the caching unit;

[1h] receiving a request at the caching unit for one of the multimedia assets from a broadcasting unit; and

[1i] responsive to receiving the request, the caching unit providing the multimedia asset to the broadcasting unit in the MPEG transport stream format.

Ex. 1001, 14:52–15:7.

[Preamble 10] A computer-implemented method comprising:

[10a] virtualizing a system including a virtualized caching server, wherein the virtualized caching server performs:

[10b] receiving, from a content provider, a request for at least one media stream for playback on a broadcast media channel, wherein the at least one media stream includes a plurality of multimedia items of different types;

[10c] obtaining content corresponding to the plurality of multimedia items from at least one source offering the content in at least one first format;

[10d] rendering a web page by a browser using the content;

[10e] generating a temporal sequence of screen captures of the rendered web page, where each screen capture defines all the content

of the web page at a given time, and at least two adjacent screen captures illustrate a dynamic change of at least a portion of the content over time;

[10f] assembling the at least one media stream using the temporal sequence of screen captures; and

[10g] providing the at least one media stream to the content provider for broadcast on the broadcast media channel.

Ex. 1001, 15:34–15:57.

D. Asserted Grounds of Unpatentability

Petitioner asserts claims 1–26 are unpatentable on the following Grounds:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/ Basis
1, 7 (Ground 1)	102 ¹	Farber ²
1, 2 (Ground 2)	102	Farber and Vermeulen ³
3 (Ground 3)	103	Farber and Pavlovskaia ⁴
4, 5, 8 (Ground 4)	103	Farber and Davis ⁵
6, 9 (Ground 5)	103	Farber and Fogel ⁶
10–16 and 18–23 (Ground 6)	103	Avellan ⁷ and Pavlovskaia-PCT ⁸

¹ The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”) includes revisions to 35 U.S.C. §§ 102, 103 that became effective after the filing date of the application that led to issuance of the challenged patent. Hence, this *inter partes* review is governed by the pre-AIA provisions of 35 U.S.C. §§ 102, 103.

² US 7,940,303 B1, filed Nov. 12, 2009 (Ex. 1003, “Farber”).

³ US 9,009,111 B2, filed May 14, 2012 (Ex. 1005, “Vermeulen”).

⁴ US 8,442,110 B2, filed Oct. 9, 2008 (Ex. 1006, “Pavlovskaia”).

⁵ US 8,676,822 B2, filed Feb. 6, 2009 (Ex. 1008, “Davis”).

⁶ US 2012/0117569 A1, published May 10, 2012 (Ex. 1009, “Fogel”).

⁷ US 8,954,600 B2, filed March 2, 2012 (Ex. 1004, “Avellan”).

⁸ WO 2010/044926 A2, Pub. April 22, 2010 (Ex. 1007, “Pavlovskaia-PCT”).

Claim(s) Challenged	35 U.S.C. §	Reference(s)/ Basis
15 (Ground 7)	103	Avellan, Pavlovskaia-PCT, and Durante ⁹
16 (Ground 8)	103	Avellan, Pavlovskaia-PCT, and Ma ¹⁰
17 (Ground 9)	103	Avellan, Pavlovskaia-PCT, and Suzuki ¹¹
24 (Ground 10)	103	Avellan, Pavlovskaia-PCT, and Gangadharan ¹²
25 (Ground 11)	103	Avellan and Wannamaker ¹³
26 (Ground 12)	102	Avellan
26 (Ground 13)	103	Avellan and Wannamaker

Pet. 1. Petitioner has filed a declaration of Mr. Stuart Lipoff in support of the Petition. Ex. 1002.

II. DISCRETIONARY DENIAL UNDER 35 U.S.C. § 314(a) - *FINTIV*

Under section 314(a), the Director has discretion to deny institution of a petition for *inter partes* review. *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2140 (2016). In determining whether to exercise that discretion on behalf of the Director, the Board considers an early trial date in related litigation in an assessment of all relevant circumstances of the case—including the merits—to balance considerations such as system efficiency, fairness, and patent quality.

⁹ US 8,819,043 B2, filed Nov. 9, 2010 (Ex. 1010, “Durante”).

¹⁰ US 9,635,075 B2, filed Mar. 8, 2010 (Ex. 1011, “Ma”).

¹¹ US 6,463,445 B1, filed Sept. 30, 1999 (Ex. 1012, “Suzuki”).

¹² US 9,331,967 B2, filed Oct. 31, 2013 (Ex. 1014, “Gangadharan”).

¹³ US Pub. No. 2004/0031052 A1, published Feb. 12, 2004 (“Ex. 1013, “Wannamaker”).

Apple Inc. v. Fintiv, Inc., IPR2020-00019, Paper 11 at 5 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv* Order”). Under this assessment, the Board evaluates the following factors (“*Fintiv* factors”):

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.

Fintiv Order 5–6. In evaluating the *Fintiv* factors, “the Board takes a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” *Id.* at 6; *see also* Scott R. Boalick, Chief Administrative Patent Judge, Guidance on USPTO’s recission of “Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation” (USPTO March 24, 2025) (“Guidance Memo”) (“[T]he factors considered in the exercise of discretion are part of a balanced assessment of all the relevant circumstances in the case, including the strength of the merits.”).

Here, the challenged patent has been asserted in parallel litigation in the Southern District of Florida (“the Florida Litigation”). Pet. 5; Paper 4, 2 (Mandatory Notices). In view of this litigation, Patent Owner argues that the Board should discretionarily deny the Petition under section 314(a). *See* Prelim. Resp.

14–27; Prelim. Sur-reply 1–7. At the time that the Preliminary Response was filed, the trial date was set for October 2025. Ex. 2003, 1.

After Patent Owner made these arguments, though, the district court in the Florida Litigation (1) stayed all deadlines indefinitely and (2) said that the October trial will not go forward as scheduled. Ex. 1031, 3.

“A district court stay of the litigation pending resolution of the PTAB trial allays concerns about inefficiency and duplication of efforts.” *Fintiv* Order 6. That is the case here. Thus, the first *Fintiv* factor strongly weighs against exercising the authority to deny institution. *Id.*

Under the second *Fintiv* factor, the proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision weighs against exercising our authority to deny institution because there is no trial date scheduled. *Id.* at 9; *see* Ex. 1031, 3.

Under the third *Fintiv* factor, we consider the investment in the parallel proceeding by the court and the parties. *Id.* In the preliminary briefing, Patent Owner expected all pre-trial activities to be complete by the institution date. Prelim. Sur-reply 4–5. Since then, the court in the Florida Litigation stayed all deadlines indefinitely, and the parties have agreed to remove the scheduled depositions. Pet Brief. 2; Ex. 1031, 3. Also, there has been no *Markman* hearing. Prelim. Reply 4. To be sure, there has been some progress with respect to discovery. *See* Prelim. Sur-reply 4–5 (citing Ex. 2008). Yet, much work remains, and the court has suspended all deadlines. *See* Ex. 1031, 3. Thus, the third *Fintiv* factor weighs against exercising our discretion to deny institution.

Under the fourth *Fintiv* factor, a Petitioner may mitigate the potential for duplicate effort or conflicting decisions by stipulating that it will not pursue in district court any ground raised or that could have been reasonably raised in an

instituted IPR petition. *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 18–19 (PTAB Dec. 1, 2020). “[A] timely-filed *Sotera* stipulation . . . is highly relevant, but will not be dispositive by itself. Instead, the Board will consider such a stipulation as part of its holistic analysis under *Fintiv*.” Guidance Memo 3. Here, Petitioner offered a *Sotera* stipulation. Ex. 1021. Although not dispositive by itself, Petitioner’s stipulation, like the one in *Sotera*, mitigates “concerns of duplicative efforts between the district court and the Board, as well as concerns of potentially conflicting decisions.” *Sotera*, Paper 12 at 19. Patent Owner argues that the stipulation is belated. Sur-reply 5–6. We disagree because a *Sotera* stipulation filed before the institution decision is considered timely. *See* Guidance Memo 2 n.1 (citing *NXP USA, Inc. v. Impinj, Inc.*, IPR2021-01556, Paper 13 (Sept. 7, 2022) (precedential)). Thus, the fourth *Fintiv* factor weighs strongly in favor of not exercising discretion to deny institution under 35 U.S.C. § 314(a). *See Sotera*, Paper 12 at 19.

Under the fifth *Fintiv* factor, “[i]f a petitioner is unrelated to a defendant in an earlier court proceeding, the Board has weighed this fact against exercising discretion to deny institution under *NHK*.” *Fintiv*, Paper 11 at 13–14. Stingray Group Inc. and Stingray Music USA, Inc. are the petitioners and real parties-in-interest. Pet. 4. Although Stingray Music is not accused of patent infringement in the Florida Litigation, Stingray Group Inc. is. Prelim. Reply 6–7. Because Stingray Music USA, Inc. is a wholly owned subsidiary of Stingray Group Inc. (Prelim. Sur-reply 6; Pet. 4.), we determine that Petitioner is related to the defendant in the parallel proceeding. This is the only factor favors discretionary denial. Even so, we note that there is no trial date set in the Florida Litigation. Ex. 1031, 3.

Lastly, under the sixth factor, when considering whether to discretionarily deny a petition, the Board assesses “all the relevant circumstances in the case,”

including the Petition’s merits. *Fintiv* Order 14–16. The merits of the Petition here are compelling. For example, we disagree with Patent Owner’s arguments against the Petition’s challenges for the reasons discussed below. *See* Section III. From our review of the challenges to claims 1 and 10, including those arguments not addressed in Patent Owner’s Preliminary Response, we find that Petitioner’s challenge plainly leads to a conclusion that one or more claims of the ’441 patent are unpatentable. *Id.* Thus, the sixth factor weighs in favor of not exercising discretion to deny institution.

Only the fourth *Fintiv* factor favors denial—i.e., the petitioners are related to the defendants in the Florida Litigation. The rest of the factors weigh against denial—two strongly so. Thus, considering all the relevant circumstances here, we decline to exercise our discretion to deny review.

III. MERITS

A. *Level of Ordinary Skill in the Art*

Petitioner states that a person of ordinary skill in the art (“POSITA”) “would have a bachelor’s or equivalent degree in computer science or a related field and at least 2 years of experience in multimedia processing or delivery using internet protocols.” Pet. 10 (citing Ex. 1002 ¶¶ 67–68). Petitioner further states that “a person with less formal education but more experience, or more formal education but less experience, could have also met the relevant standard for a POSITA.” *Id.* Patent Owner submits a similar definition (*see* Prelim. Resp. 13–14), but states that a POSITA “would understand that . . . the subject of the patent is a software-based

solution to broadcasting multimedia streams, and the skillset and expertise in hardware-based systems would not make one knowledgeable about software-based systems.” Prelim. Resp. 13–14.

We determine that no express finding is necessary, on the present record, and that the level of ordinary skill in the art is reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978). The difference in how each party characterizes a POSITA’s work experience does not change our analysis or conclusions based on the present record. Should Patent Owner dispute Petitioner’s definition during trial, we encourage Patent Owner to explain how a software-focused definition would affect any obviousness analysis in our final written decision.

B. Asserted Anticipation of Claims 1 and 7 by Farber (Ground 1)

Petitioner argues that independent claim 1 and dependent claim 7 of the ’441 patent are anticipated by Farber (Ground 1) under 35 U.S.C. § 102. Pet. 11–28 (citing Ex. 1003).

1. Farber (Ex. 1003)

Farber discloses an “audio broadcast system” that is “designed for transmitting various music channel broadcasts over a network such as a cable television network or a satellite network for distribution to a plurality of subscribers.” Ex. 1003, 5:9–12. This system can be implemented on “a personal or general-purpose computer.” *Id.* at 8:12–13.

We reproduce below Petitioner’s annotated version of Farber Figure 4:

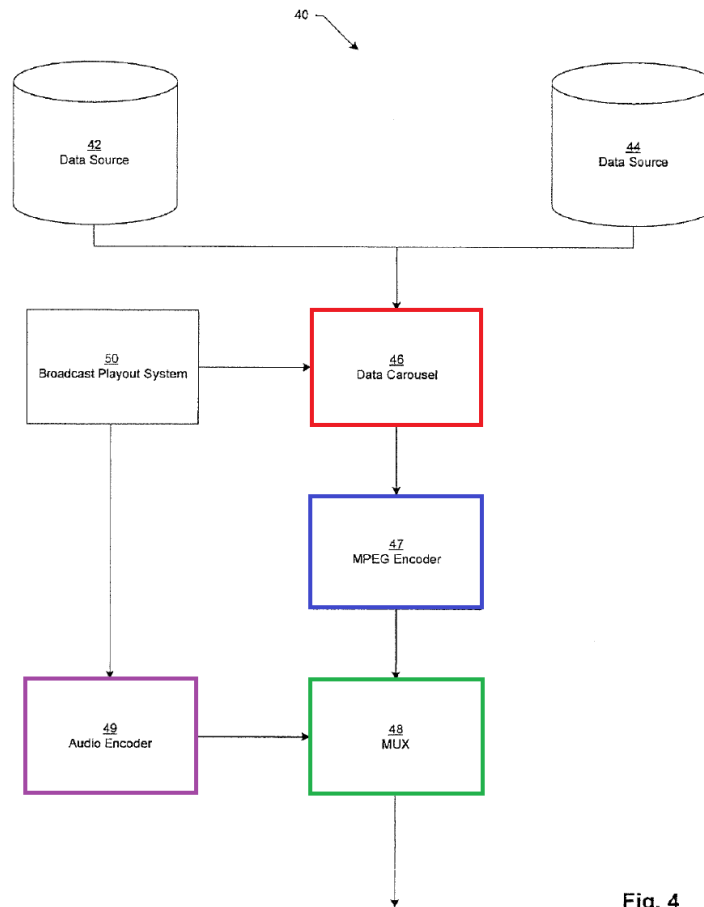


Fig. 4

Pet. 14. In Figure 4, “the encoder 47 [blue box] pulls template information, images, and text from the data carousel subsystem 46 [red box] and creates, based on the template information, a screen having embedded assets such as those shown in screens 1, 2 or 3 which are associated with the currently queued song.” Ex. 1003 at 6:3-7. “The MPEG encoder 47 then creates an MPEG transport stream for all channels with the embedded MPEG video frames.” *Id.* at 6:7-8. “The multiplexer 48 [green box] serves to combine the audio feed from the audio encoder 49 [purple box] and the associated encoded MPEG transport stream from the MPEG encoder 47.” *Id.* at 6:18-21. “The multiplexer 48 then feeds the multiplexed signal out for broadcast in the form of a video transport stream to a distribution system,” such as

“a cable television network or a satellite network provider.” *Id.* at 6:21-25.

2. *Claims 1 and 7*

Petitioner asserts that Farber discloses all the elements of claim 1. Pet. 11–28. Petitioner relies on Mr. Lipoff’s Declaration testimony to support its argument that Farber anticipates independent claim 1.

Patent Owner argues that none of the claimed creation steps are performed at Farber’s storage devices, Farber’s storage devices do not determine whether there is sufficient storage, and Farber’s self-contained system does not disclose cloud-based data retrieval. Prelim. Resp. 41–42.

- a. ***Limitation [1a]:*** “*creating a plurality of multimedia assets at a caching unit, for each one of the plurality of multimedia assets;*”

Petitioner asserts that Farber discloses a “music channel” that includes encoded audio data and corresponding MPEG video frames for the queued song/channel, which discloses the claimed “multimedia asset.” Pet. 15 (citing Ex. 1003, 6:18–25, Fig. 4). Petitioner asserts that each music channel is associated with a “channel identifier” and includes a “plurality of media files”—such as songs, album artwork and video assets—that are encoded in an “MPEG transport stream” and cached for subsequent playback. *Id.*

Patent Owner challenges Petitioner’s assertion that Farber discloses a “caching unit” where the claimed functions are performed. Prelim. Resp. 45–47. Patent Owner argues that “the disclosed storage medium is not a caching unit where the claimed functions are performed, but rather generic storage devices such as DVDs, CD ROMs, or hard disk drives that can be used to store the assembled media asset.” *Id.* (citing Ex. 1003, 7:66–8:3). Patent Owner particularly asserts that Farber discloses only “a system that stores the assembled media after already creating this multiplexed content as the output of the ‘MUX’ Element 146, which

only then can be stored in a ‘Playout Storage’ 150 module (FIG. 5).” *Id.* Moreover, Patent Owner argues, Farber “does not disclose that any of claimed steps involved in creating the media asset are performed at the caching unit.” *Id.* at 46. Patent Owner asserts that Petitioner has not identified the claimed caching unit. *Id.* at 47.

Claim 1 does not limit the “caching unit” in any way. With this in mind, we preliminarily agree that Farber discloses the subject matter of limitation 1a sufficiently to meet Petitioner’s burden on institution.

- b. ***Limitation [1b]:*** “*determining that there is sufficient storage space for the multimedia asset at the caching unit;*”

Petitioner asserts that Farber discloses this element because “POSITAs would recognize that the successful playout of the requested media stream is a “determin[ation] that there is sufficient storage space” for the multimedia asset at the caching unit. Pet. 17 (citing Ex. 1002, ¶126). Petitioner asserts that by retrieving “at a later time” the stored data, there must have been sufficient storage space for that data. *Id.* Moreover, Petitioner asserts, element 1b does not require “this determination to be made ***before*** storing the multimedia asset, nor does it require a determination of a specific ***amount*** of available space.” *Id.* Similarly, element 1b “also ***does not*** specify the form that this ‘determination’ step takes or require any subsequent action in response.” *Id.* Thus, Petitioner argues, because successfully storing and retrieving a multimedia asset satisfies the plain and ordinary language of Element 1b, POSITAs would recognize that Farber inherently teaches Element 1b. *Id.*

Patent Owner argues that it does not follow that “just because there was space sufficient to save the asset, that the caching unit necessarily made an initial determination.” Prelim Resp. 48. Moreover, Patent Owner argues that the determining step is a separate step from the storing and retrieving steps. *Id.* at 49.

Patent Owner does not point to persuasive record evidence supporting these assertions. *See id.*

Claim 1 does not require the determination that there is sufficient storage space to be made before storing the multimedia asset, nor does it require a determination of a specific amount of available space, or define a subsequent action to take in response to the determination. We have reviewed the evidence cited by Petitioner, and find Farber discloses the subject matter of limitation 1b sufficiently to meet Petitioner’s burden on institution. *See* Pet. 17.

c. ***Limitation [1d]:*** *retrieving from a cloud service a plurality of media files to be included in the multimedia asset including a media identifier for each one of the media files;*

Petitioner asserts that Farber discloses this element because Farber teaches that data sources “may be connected to or in communication with the data carousel subsystem 46” and “may or may not be collocated with the data carousel subsystem 46.” Pet. 21 (citing Ex. 1003, 5:5:33–38, 5:29–30). Patent Owner argues that Farber discloses only a “self-contained system” and “did not contemplate retrieving data from cloud-based services.” Prelim. Resp. 54.

Claim 1 does not limit a “cloud service” in any way. Farber states that the “second data source 44 may also be associated with and connected to a server or other computer.” Ex. 1003 at 5:29-30. Farber also states that data sources 42 and 44 “may or may not be located in a single location and may or may not be co-located with the data carousel subsystem.” Ex. 1003 at 5:36-38. Thus, we disagree that Farber only discloses a “self-contained system” in the characterization presented by Patent Owner. *See* Prelim. Resp. 54.

We have reviewed the evidence cited by Petitioner, and find Farber discloses the subject matter of limitation 1d sufficiently to meet Petitioner’s burden on institution. *See* Pet. 21–22.

d. *Remaining Limitations of Claim 1*

Apart from the arguments discussed above, Patent Owner does not present arguments specifically directed to the other limitations of claim 1. *See* Prelim. Resp. 41–49. We determine that Petitioner’s arguments made in connection with those limitations are sufficient at this stage and on this record. Pet. 22–28.

We agree with Petitioner that Farber discloses generating a channel identifier for the multimedia asset, as recited in 1c; for each one of the media files, creating a custom hypertext transfer markup language (HTML) user interface that includes video, as recited in 1e; encoding each of the media files and encapsulating them together using an MPEG transport stream format, as recited in 1f; storing each one of the multimedia assets at the caching unit, as recited in 1g; receiving a request at the caching unit for one of the multimedia assets from a broadcasting unit, as recited in 1h; and responsive to receiving the request, the caching unit providing the multimedia asset to the broadcasting unit in the MPEG transport stream format, as recited in 1i. *Id.*

e. *Claim 7: “The method of claim 1, wherein the video for the custom HTML interfaces includes video taken from the media file.”*

Petitioner argues that video for the HTML interface can be taken from a motion picture video file. Pet. 28 (citing Ex. 1003, 3:42–44, 3:30–31, 3:52–54). In particular, Petitioner argues that Farber’s custom HTML interface includes assets for the channel name 18, album art 20, title track label and artist information 22, and promotional/advertising panels 24, 28. *Id.* Petitioner asserts that Farber discloses that these assets may include motion picture video and information to support those assets. *Id.*

Patent Owner does not directly address this limitation. Prelim. Resp. 41–49. On the present record, we determine Petitioner’s argument and evidence show a

reasonable likelihood it would prevail in showing the unpatentability of independent claims 1 and 7 as anticipated by Farber.

C. *Asserted Obviousness of Claims 1 and 2 By Farber and Vermeulen (Ground 2)*

Petitioner argues claims 1 and 2 are rendered obvious by the combination of Farber and Vermeulen. Pet. 29–33. For the reasons explained below, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing on its asserted challenge. Before addressing Petitioner’s contentions, we provide an overview of Vermeulen. Farber is discussed above.

1. *Vermeulen (Ex. 1005)*

Vermeulen discloses a “distributed, web-services based storage system.” Ex. 1005, Abstr. Vermeulen discloses “nodepicker 130” which acts as “storage node selection logic.” Ex.1005 at 14:59-60. Prior to storing data, nodepicker 130 “develop[s] a write plan” and “ensure[s] that the write plan has a reasonable chance of succeeding—for example, that the nodes 160 specified in the write plan are in fact operational and are expected to have sufficient storage resources available to accept the object.” *Id.* at 14:65–15:8.

2. *Independent Claim 1*

Petitioner asserts that Farber discloses the limitations as discussed above with respect to Ground 1, but also argues that to the extent Farber does not disclose elements 1b and 1h, it would have been obvious to combine Farber’s system with Vermeulen, which teaches determining whether there is available space in storage and receiving requests for stored multimedia. *See* Pet. 17, 27.

- a. ***Limitation [1b]:*** “determining that there is sufficient storage space for the multimedia asset at the caching unit;”

Petitioner argues that Vermeulen's nodepicker 140 acts as a storage node selection logic, and that nodepicker 140 ensures that nodes are expected to have sufficient storage resources available. Pet. 29 (citing Ex. 1005, 14:65–15:8, 7:2–3).

Patent Owner argues that even assuming Vermeulen discloses a determining step, it is not performed at the caching unit. Prelim. Resp. 51 (citing Ex. 1001, 14:55-57). Patent Owner argues Vermeulen's storage system is the node 160 but any determination is made by the nodepicker 130, which is distinct from the nodes 160. *Id.* (citing 1005, Fig.2, 14:64–47, Ex. 2006 ¶ 90).

Claim 1 does not require the claimed determination to be made only at the caching unit. Rather, the claim requires determining that there is sufficient storage space in the caching unit, i.e., that the caching unit has sufficient storage space. Thus, we preliminarily agree with Petitioner that Vermeulen teaches, or at least suggests, the recited “determining that there is sufficient storage space for the multimedia asset at the caching unit,” as recited in claim 1.

b. *Combination of Vermeulen and Farber*

Petitioner argues that Vermeulen teaches that “multimedia applications generate and use application data of various types and formats, such as . . . images, audio and video data, among others.” Ex. 1005, 1:26-28. To store this data, Vermeulen discloses “a storage model for providing data storage to users as a service, such as a web service” that “may include a web services interface configured to receive, according to a web services protocol, client requests for access to data objects.” Ex-1005, 4:50-51, 2:17-19. Patent Owner argues, however, that there is “no motivation to combine Vermeulen's use of a nodepicker, which addresses data accessibility, redundancy and reliability with Farber's method for avoiding screen burn-in.” Prelim. Resp. 52. Patent Owner argues the references “address vastly different problems” and that Vermeulen “teaches away from

Farber’s use of conventional local storage devices such as DVDs, CD ROMs, or hard disk drives.” *Id.*

For purposes of institution, we find sufficient Mr. Liphoff’s testimony that a person of ordinary skill in the art would have been motivated to combine Farber and Vermeulen because it is advantageous to check for available space in storage prior to storing data, such as Farber’s transport streams that can be stored in storage device 150 when “payout is desired at a later time.” Ex. 1002 (citing Ex. 1003, 7:62-8:3). Farber also states that its storage can be “any suitable storage medium such as DVD, CD ROM, hard disk, or any other suitable read only or rewritable storage medium,” and we find sufficient Mr. Liphoff’s testimony that these are all forms of memory that POSITAs know how to evaluate for available space, and thus, Vermeulen’s nodepicker would be compatible with the system of Farber and not require any alteration to its operation. *Id.*

c. *Remaining Limitations of Claims 1 and 2*

Apart from the arguments discussed above, Patent Owner does not present arguments specifically directed to the other limitations of claims 1 and 2. *See* Prelim. Resp. 41–54. We determine that Petitioner’s arguments made in connection with those limitations are sufficient at this stage and on this record. Pet. 29–32.

D. *Asserted Obviousness of Claims 3–6, 8, and 9 (Grounds 3, 4, and 5)*

At this point in the proceeding, Patent Owner does not make separate arguments for dependent claims 3–6, 8, and 9. We have reviewed Petitioner’s contentions (Pet. 33–40), the testimonial evidence (Ex. 1002), and the disclosures of Pavlovskaja, Davis, and Fogel, and determine that the record at this stage of the proceeding supports Petitioner’s assertions as to obviousness of at least claims 3–6, 8, and 9.

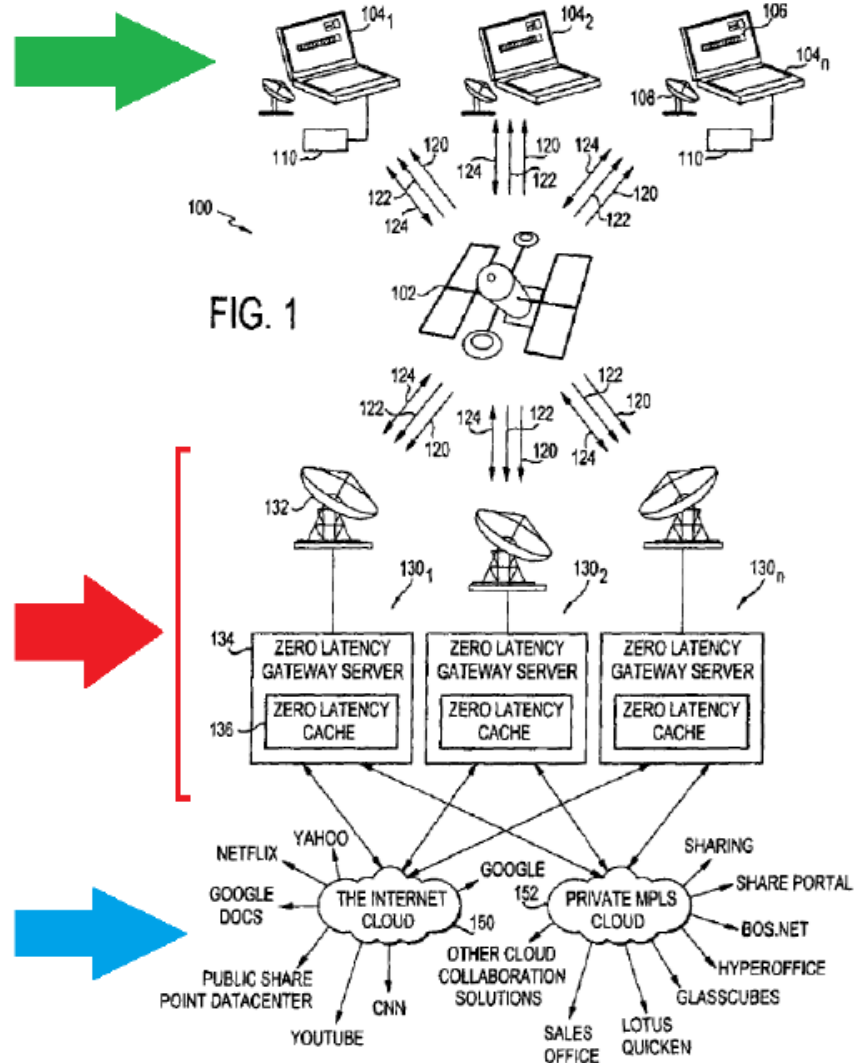
E. Asserted Obviousness of Claims 10–16 and 18–23 (Ground 6)

In ground 6, Petitioner argues that Avellan and Pavlovskaja-PCT render obvious claims 10–16 and 18–23. Pet. 41–60.

1. Limitation [10b]: “content provider”

Claim 10 recites, in part, “receiving, from *a content provider*, a request for at least one media stream for playback on a broadcast media channel, wherein the at least one media stream includes a plurality of multimedia items of different types.” Ex. 1001, 14:48–51. Petitioner refers to this limitation as “10b.” Pet. 43–44.

Petitioner relies on Avellan’s Figure 1, reproduced below with Petitioner’s annotations. *Id.* at 45.



Annotated Figure 1 shows Avellan's system 100 for providing high-definition (HD) internet in a low latency environment. *See* Ex. 1004, 2:16–18, 3:10–12. System 100 communicates data from networks 150 and 152 (blue arrow) to a virtual browser 106 on user computers 104₁–104_n (green arrow) via gateway platforms 130₁–130_n (red arrow) and broadcast device 102. *Id.* at 3:24–37. Gateway platforms 130₁–130_n include satellite antenna 132 and gateway service 134 with cache 136. *Id.* at 3:64–66.

Petitioner argues that Avellan teaches limitation 10b and the “content provider” recited in that limitation because the user’s browser 106 sends signals to satellite 102, which accesses network 150 via gateway 130 to retrieve a media stream requested by the user. Pet. 44 (citing Ex. 1004, 4:21–25; 4:56–58; 6:22–25). Data from network 150 can be streaming video. Ex. 1004, 2:62–3:17. According to the Petition, gateway server 134 converts webpages from a first format to a video or image-frame format, and gateway platforms 130₁–130_n broadcast information over antennas 132 to broadcast device 102. Pet. 44 (citing Ex. 1004, 4:36–49; 4:62–67; 5:20–22).

According to Patent Owner, claim 10 requires a content provider that requests, receives, and uses the media stream, but Avellan’s broadcast device 102 is not a content provider. Prelim. Resp. 32–33. In Patent Owner’s view, “the term ‘content provider’ means ‘a third party such as a cable television or satellite television operator, or any other multimedia outlet, that requests and receives multimedia content for playback on a broadcast media channel.’” *Id.* at 15. Patent Owner argues that Avellan’s broadcast device 102 simply transmits data. *Id.* at 32. Patent Owner argues that Avellan’s users request and receive the media, which does not meet the claim. *Id.* at 34–35.

The issue here is whether claim 10 requires that the recited “content provider” originates the request. We agree with Petitioner that claim 10 does not require this. Pet. Reply 7.

Apart from being received from the content provider, claim 10 does not limit the request’s origin in any way. Rather, claim 10 only requires that the request is received from the content provider. Ex. 1001, 15:38–42. Claim 10 recites “comprising” in the preamble of the method (*id.* at 15:34), which is a term that

does not exclude additional, unrecited steps. Thus, claim 10 encompasses user-originated requests that are received from other entities.

With this understanding of the claim, we preliminarily agree with Petitioner that Avellan teaches limitation 10b through its communication path from network 150 to user computers 104₁–104_n via gateway platforms 130₁–130_n and broadcast device 102. Pet. 43–46. That is, Avellan’s gateway platform 134 receives a request from broadcast device 102 for at least one media stream, and claim 10 does not exclude user-originated requests. *See id.* We agree that the content can be video from CNN, BBC, ESPN, or other live-streaming television feeds. *Id.* at 46 (citing Ex. 1004, 8:18–21). Thus, at this stage and on this record, we agree with Petitioner that Avellan teaches limitation 10b. *See id.* at 43–46.

2. *Remaining Limitations*

Apart from the arguments discussed above, Patent Owner does not present arguments specifically directed to the other limitations of claims 10–16 and 18–26. *See Prelim. Resp.* We determine that Petitioner’s arguments made in connection with those limitations are sufficient at this stage and on this record. Pet. 41–60.

F. Asserted Obviousness of Claims 15–17, 24–26 (Grounds 7–13)

At this point in the proceeding, Patent Owner does not make separate arguments for dependent claims 15–17, and 24–26. We have reviewed Petitioner’s contentions (Pet. 62–73) the testimonial evidence (Ex. 1002), and the disclosures of Durante, Ma, Suzuki, Gangadharan, and Wannamaker, and determine that the record at this stage of the proceeding supports Petitioner’s assertions as to anticipation or obviousness of at least claims 15–17, 24–26.

IV. CONCLUSION

For the foregoing reasons, we determine Petitioner has established a reasonable likelihood of prevailing in its challenge to the patentability of at least

one claim in the '441 patent. Therefore, we institute *inter partes* review of all challenged claims on all grounds.

At this stage of the proceeding, the Board has not made a final determination as to the patentability of any challenged claims or any underlying factual or legal issues. A final determination will be made based on the record as developed during the *inter partes* review.

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 claims 1–26 of the '441 patent is instituted with respect to all grounds set forth in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the '441 patent shall commence on the entry date of this Order, and 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.

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