

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DISH NETWORK L.L.C.,
Petitioner,

v.

BROADBAND iTV, INC.,
Patent Owner.

IPR2020-01280
Patent 9,998,791 B2

Before JEFFREY S. SMITH, JUSTIN T. ARBES, and
DANIEL J. GALLIGAN, *Administrative Patent Judges*.

ARBES, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. *Background and Summary*

Petitioner DISH Network L.L.C. filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1–3, 5–12, and 14–18 of U.S. Patent No. 9,998,791 B2 (Ex. 1001, “the ’791 patent”) pursuant to 35 U.S.C. § 311(a). Patent Owner Broadband iTV, Inc. filed a Preliminary Response (Paper 9, “Prelim. Resp.”) pursuant to 35 U.S.C. § 313. Petitioner also filed

an explanation for filing multiple petitions ranking its Petition in this proceeding ahead of its petition in Case IPR2020-01281 (Paper 3). Patent Owner filed a response (Paper 8). With our authorization (Paper 11), Petitioner filed a Reply (Paper 13, “Reply”) and Patent Owner filed a Sur-Reply (Paper 14, “Sur-Reply”) directed solely to an issue regarding whether we should exercise our discretion to deny the Petition under 35 U.S.C. § 314(a).

Pursuant to 35 U.S.C. § 314(a), the Director may not authorize an *inter partes* review unless the information in the petition and preliminary response “shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” For the reasons that follow, we institute an *inter partes* review as to claims 1–3, 5–12, and 14–18 of the ’791 patent on all grounds of unpatentability asserted in the Petition.

B. Related Matters

The parties indicate that the ’791 patent is the subject of three district court cases: *Broadband iTV, Inc. v. DISH Network L.L.C.*, Case No. 6:19-cv-716 (W.D. Tex.)¹ (“the Texas case”), *Broadband iTV, Inc. v. AT&T Services, Inc.*, Case No. 6:19-cv-712 (W.D. Tex.), and *Broadband iTV, Inc. v. DirecTV, LLC*, Case No. 6:19-cv-714 (W.D. Tex.) (consolidated into Case No. 6:19-cv-712, “the AT&T case”). *See* Pet. 4–5; Paper 5, 1; Ex. 2009. Petitioner filed another petition challenging claims 1–3, 6–12, and 14–18 of the ’791 patent in Case IPR2020-01281, and filed six other

¹ We refer to the United States District Court for the Western District of Texas as “the Texas court.”

petitions challenging claims of related patents also asserted in the district court cases in Cases IPR2020-01267, IPR2020-01268, IPR2020-01332, IPR2020-01333, IPR2020-01359, and IPR2020-01360. Two different petitioners previously filed petitions challenging claims of a patent related to the '791 patent, U.S. Patent No. 7,631,336 B2 (“the '336 patent”), in Cases IPR2014-01222 and CBM2014-00189, both of which were denied. *See* Pet. 5; Paper 5, 2.

C. The '791 Patent

The '791 patent discloses devices and methods for “managing, converting and displaying video content on a video-on-demand platform, and particularly, advertising displays used for drill-down navigation and displays of consumer-generated classified ads on TV.” Ex. 1001, col. 1, ll. 53–59. Digital set-top boxes “allow subscribers to input via remote control units their selection inputs for transmission on a back channel of the connecting cable to the [cable television (CATV)] head end, thereby enabling subscribers to access interactive television services and other types of advanced digital TV services.” *Id.* at col. 2, ll. 9–16. Video-on-demand (VOD) systems, for example, allow a viewer to “enter a selection choice for a video program via the remote control unit to the set-top box and have the desired video program delivered instantaneously for display on the TV.” *Id.* at col. 2, ll. 16–22. The '791 patent explains that “[w]ith the increasing interactive functionality and customer reach of interactive television services, advertisers and content providers [found] it increasingly attractive to employ on-demand advertising, program content, and TV transactions for home viewers,” and states that it “would be particularly desirable to adapt a VOD delivery platform to deliver ads, promotions, programs, and

informational content by allowing viewers to navigate readily and visually to specific items of interest” and thereby “create a satisfying viewer experience.” *Id.* at col. 2, ll. 38–42, col. 3, ll. 1–9.

The disclosed VOD system employs “templated content delivery to create a User Interface for the viewer to navigate through progressively more specific template (display ad) types linked in series to reach an end subject of interest to the viewer.” *Id.* at col. 3, ll. 53–58. “[T]he series of progressively more specific display ad types allow[s] the subscriber to navigate to an end subject of interest while at the same time having a unique visual experience of moving visually through a series of ads mirroring the viewer’s path to the end subject of interest.” *Id.* at col. 3, ll. 58–63.

A VOD application server at a cable head end manages a database of templates and video content segments for “generating templated VOD content.” *Id.* at col. 5, ll. 53–58, Fig. 1A. “The VOD content is generated in response to a viewer request signal transmitted from” the viewer’s digital set-top box to the cable head end. *Id.* at col. 5, ll. 58–62. The ’791 patent discloses that

templates are of different types ordered in a hierarchy, and display of content in a template of a higher order includes links the viewer can select to content of a lower order in the hierarchy. Upon selecting a link using the remote control, the VOD Application Server 10 retrieves the template and video content of lower order and displays it to the viewer. Each successive templated display may have further links to successively lower levels of content in the hierarchy, such that the viewer can use the series of linked templated VOD displays as a “drill down navigation” method to find specific end content of interest.

Id. at col. 6, ll. 28–39, Fig. 1B (depicting exemplary “drill down navigation” for a set of automobile infomercials, where the viewer can navigate by make, model, dealer, sales event, and inventory).

Figure 1C of the '791 patent is reproduced below.

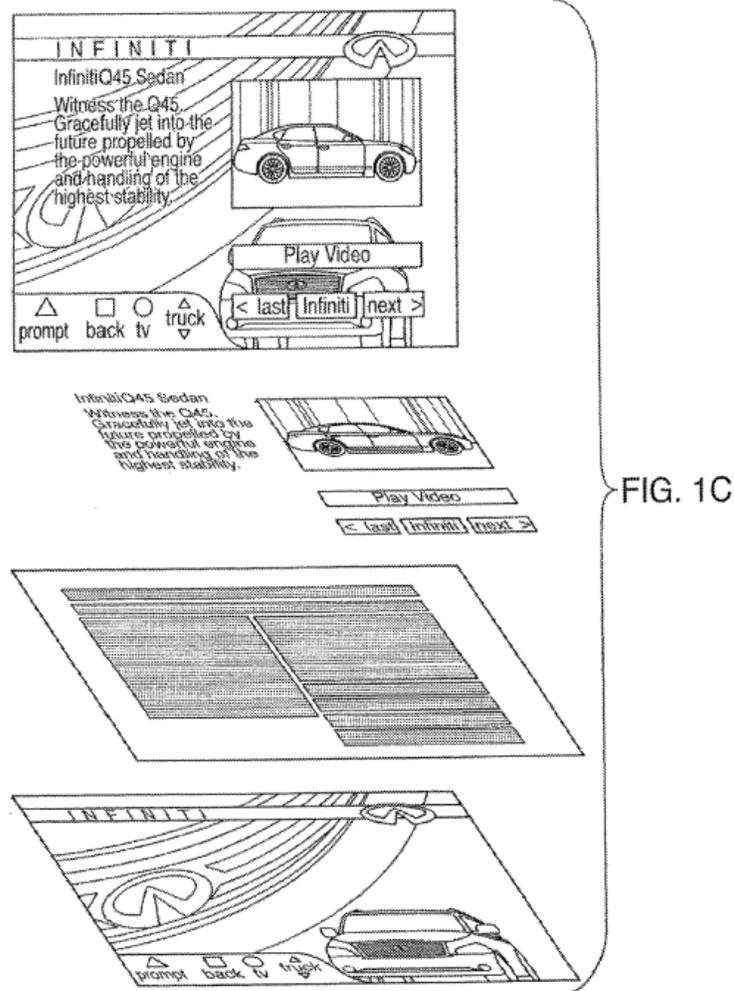


Figure 1C depicts “a templated VOD display . . . generated in layers.” *Id.* at col. 7, ll. 37–38. As shown in Figure 1C,

[a] Background screen provides a basic color, logo, or graphical theme to the display. A selected Template (display frame) appropriate to the navigation level the intended display resides on is layered on the Background. The Template typically has a frame in which defined areas are reserved for text, display image(s), and navigation links (buttons). Finally, the desired content constituted by associated Text, Image & Buttons is retrieved from the database and layered on the Template. The resulting screen display shows the combined background logo or theme, navigation frame, and text, video images, and buttons.

Id. at col. 7, ll. 38–49.

The '791 patent also describes a web-based content management system for “enabling an individual user to upload content from their computer via a web browser to display a consumer-generated video ad” (e.g., a classified ad). *Id.* at col. 9, ll. 37–48, Fig. 2A; *see id.* at col. 5, ll. 1–27. Figure 2A of the '791 patent is reproduced below.

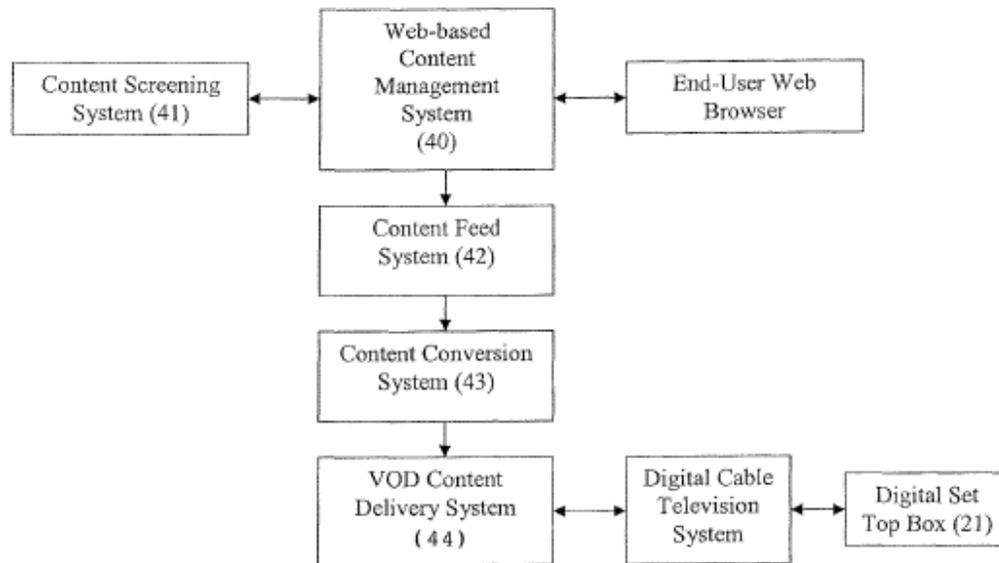


Figure 2A depicts web-based content management system 40 in communication with, among other components, an end-user web browser and VOD content delivery system 44, which provides video content to digital set-top box 21 via the digital cable television system. *Id.* at col. 9, l. 63–col. 10, l. 4. “The uploaded content [from the end-user web browser] includes meta data for classifying the video ad by title and topical area(s).” *Id.* at col. 9, ll. 48–49. A content conversion system “automatically converts the consumer-generated content” into a “video display format compatible with the VOD content delivery system,” and “[t]he converted video ad is indexed by title and classified topical areas according to the meta data supplied by the user.” *Id.* at col. 9, ll. 57–63, col. 13, ll. 40–53. The '791 patent also explains that a feature of the disclosed web-based content

management system is the “ability to specify the date and time when a classified content item is to become accessible by users of the interactive television system.” *Id.* at col. 10, l. 58–col. 11, l. 24.

D. Illustrative Claim

Challenged claim 1 of the '791 patent is independent. Claims 2, 3, 5–12, and 14–18 depend directly from claim 1. Claim 1 recites:

1. A method for video-on-demand content delivery for providing video-on-demand services to a plurality of television service subscribers via a television service provider system that comprises a video-on-demand content delivery system having one or more computers, the method comprising:

(a) receiving, at the one or more computers of the video-on-demand content delivery system of the television service provider system from a Web-based content management system,

at least the following digital content:

(i) a first video content, along with

(ii) first metadata, associated with the first video content and usable in a video-on-demand content menu, the first metadata comprising:

(1) first title information comprising a first title,

(2) first content provider designated hierarchically arranged category information and subcategory information to specify a location of the first title information for the video content in a predetermined video-on-demand application, the first content provider designated category information and subcategory information associated with the first title information of the first video content using a same hierarchical structure of categories and subcategories as is to be used for

placement of the first title information in the predetermined video-on-demand application; and

(3) first time information for availability of the first video content for scheduling of viewing of the first video content through the predetermined video-on-demand application;

wherein the first video content was uploaded to the Web-based content management system by a content provider device associated with a first video content provider via the Internet in a digital video format, along with the associated first metadata including first title information, and first content provider designated hierarchically arranged category information and subcategory information designated by the first video content provider, to specify a hierarchical location of the first title of the first video content within the video-on-demand content menu using the first category information and first subcategory information associated with the first title information;

(b) storing, at a video server comprising one or more computers and computer-readable memory operatively connected to the one or more computers of the video server, respective video content, including the first video content, wherein the video server is associated with the video-on-demand content delivery system and is configured to supply the respective video content, upon request, for transmission to a set top box operatively connected to TV equipment of a television service subscriber;

(c) providing a respective set top box operatively connected to respective TV equipment of a respective television service subscriber with access to the video-on-demand content menu for navigating through titles, including the first title of the first video content, by hierarchically-arranged category information and subcategory information including at least the first category information and the first subcategory information in order to locate a respective one of the titles whose associated video content is desired for viewing on the respective TV equipment,

wherein the video-on-demand content menu lists the titles using the same hierarchical structure of category information and subcategory information as was designated by one or more video content providers, including the first video content provider, in the uploaded metadata for the respective video content, wherein a plurality of different video display templates, including a first video display template, are accessible to the set top box, and wherein the predetermined video-on-demand application accesses the first video display template for generating and displaying the video-on-demand content menu at the respective TV equipment of the respective television service subscriber;

(d) determining, at the predetermined video-on-demand application, which titles are available for selection from the video-on-demand content menu at a respective time based at least in part on respective time information during which the respective video content associated with the respective time information can be accessed through the predetermined video-on-demand application; and

(e) in response to (i) the respective television service subscriber selecting, via a control unit in communication with the respective set top box, the first title associated with the first video content from the hierarchically-arranged category information and subcategory information of the video-on-demand content menu, and (ii) the respective set top box transmitting an electronic request for the first video content associated with the selected first title, retrieving the first video content from the video server, and transmitting the first video content to the respective set top box for display of the first video content on the respective TV equipment of the respective television service subscriber.

E. Evidence

Petitioner relies on the following prior art:

U.S. Patent No. 7,159,233 B2, filed Jan. 29, 2001, issued Jan. 2, 2007 (Ex. 1005, “Son”);

U.S. Patent Application Publication No. 2010/0153997 A1, published June 17, 2010, filed Nov. 23, 2009, continuation

of application filed Jan. 21, 2004 (Ex. 1004, “Baumgartner”);

U.S. Patent Application Publication No. 2005/0160458 A1, published July 21, 2005, filed Jan. 21, 2004 (Ex. 1025, “Baumgartner II”);

Robert G. Scheffler, *Ingest & Metadata Partitioning: Requirements for Television on Demand* (Ex. 1006, “Scheffler”);² and

CableLabs Video-on-Demand Content Specification Version 1.1, MD-SP-VOD-CONTENT1.1-01-020927 (2002) (Ex. 1009, “CableLabs”).

F. Prior Art and Asserted Grounds

Petitioner asserts that claims 1–3, 5–12, and 14–18 of the ’791 patent are unpatentable on the following grounds:

Claim(s) Challenged	35 U.S.C. §	References/Basis
1, 2, 5–12, 14–18	103(a) ³	Baumgartner, Son, Scheffler, CableLabs
3	103(a)	Baumgartner, Son, Scheffler, CableLabs, Baumgartner II

² When citing non-patent references filed by Petitioner, such as Scheffler and CableLabs, we refer to the page numbers in the bottom-right corner added by Petitioner. *See* 37 C.F.R. § 42.63(d)(2).

³ The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. § 103. Because the challenged claims of the ’791 patent have an effective filing date before the effective date of the applicable AIA amendment, we refer to the pre-AIA version of 35 U.S.C. § 103.

II. ANALYSIS

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

Institution of *inter partes* review is discretionary. See *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (“[T]he PTO is permitted, but never compelled, to institute an [*inter partes* review (IPR)] proceeding.”); 35 U.S.C. § 314(a) (“The Director *may not* authorize an *inter partes* review to be instituted unless the Director determines that the information presented in the petition filed under section 311 and any response filed under section 313 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.” (emphasis added)). In the Preliminary Response, Patent Owner contends that we should exercise our discretion to deny the Petition because Petitioner’s invalidity grounds will be resolved in the Texas case before our deadline for a final written decision. Prelim. Resp. 9–30.

The Board has held that the advanced state of a parallel district court action is a factor that may weigh in favor of denying a petition under § 314(a). See *NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 at 20 (PTAB Sept. 12, 2018) (precedential) (“*NHK*”); Patent Trial and Appeal Board Consolidated Trial Practice Guide (Nov. 2019), 58 & n.2, available at <https://www.uspto.gov/TrialPracticeGuideConsolidated> (“Trial Practice Guide”). We consider the following factors to assess “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”:

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.

Apple Inc. v. Fintiv, Inc., IPR2020-00019, Paper 11 at 5–6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”). In evaluating these factors, we “take[] a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” *Id.* at 6. Upon consideration of these factors, we decline to exercise our discretion to deny the Petition.

1. Whether the Court Granted a Stay or Evidence Exists That One May Be Granted if a Proceeding Is Instituted

The *Fintiv* panel indicated that, in previous Board decisions, the existence of a district court stay pending Board resolution of an *inter partes* review has weighed strongly against discretionary denial, while a denial of such a stay request sometimes weighs in favor of discretionary denial.

Fintiv, Paper 11 at 6–8.

Patent Owner argues that the '791 patent is asserted in the Texas case and in the AT&T case against AT&T Services, Inc. and DirecTV, LLC, neither of which have been stayed. Prelim. Resp. 14–15. Patent Owner further asserts that a stay is unlikely in the Texas case based on comments made by the Texas court during a telephonic hearing and how the Texas court has handled other cases. *Id.* at 15–16. Finally, Patent Owner argues that a stay is unlikely in the AT&T case because those defendants have not filed petitions for *inter partes* review. *Id.* at 16.

However, determining how the Texas court might handle the issue of whether to stay any of the related cases when no motion for stay has been filed invites conjecture. It would be improper to speculate, at this stage, what the Texas court might do regarding a motion to stay, given the particular circumstances of this case. Accordingly, this factor is neutral to the exercise of our discretion. *Cf. Sand Revolution II, LLC v. Continental Intermodal Group – Trucking LLC*, IPR2019-01393, Paper 24 at 7 (PTAB June 16, 2020) (informative) (“*Sand Revolution*”) (“In the absence of specific evidence, we will not attempt to predict how the district court in the related district court litigation will proceed because the court may determine whether or not to stay any individual case, including the related one, based on a variety of circumstances and facts beyond our control and to which the Board is not privy.”); *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 12 (PTAB May 13, 2020) (informative) (“*Fintiv IP*”) (“We decline to infer, based on actions taken in different cases with different facts, how the District Court would rule should a stay be requested by the parties in the parallel case here. This factor does not weigh for or against discretionary denial in this case.”).

2. *Proximity of the Court’s Trial Date to the Board’s Projected Statutory Deadline For a Final Written Decision*

Patent Owner contends that the Texas court set a trial date of November 15, 2021, which is “almost three months before the Board’s projected statutory deadline” for issuing a final written decision in this proceeding. Prelim. Resp. 17–19; *see* Ex. 2010 (“The Court is assigning a trial date of November 15, 2021.”). Patent Owner also points to statements made by the Texas court indicating that the trial date will not be moved.

Prelim. Resp. 19; *see* Ex. 2002, 8:10–13 (“The Court has moved a couple of trial dates, and I think 100 percent of the time, it was because the parties jointly requested us to do so.”), 8:22–9:19 (“So let me say this on the record. I’m going to trial. . . . And I don’t know what might have led anyone in this case . . . to believe that I would push back the trial in this case. It’s not going to be delayed. We’re going to go to trial. . . . So I’m slightly uncertain of whatever that underlying issues were that raised concern on anyone’s part about me moving the trial date, but that’s not going to happen. So hopefully that takes that issue off the board.”).

Petitioner argues, however, that it is “highly likely that trial will occur later” than November 2021 because of “the growing volume of patent cases pending before” the Texas court as well as delays caused by the COVID-19 pandemic. Pet. 8–10 (citing Exs. 1020–1022). Specifically, Petitioner points to orders of the Texas court delaying all civil trials for a period of time in 2020 and asserts that “[a]ll of these trials will need to be rescheduled, causing cascading delays and likely continuances of more recently filed cases, including the parallel district court proceeding at issue here.” *Id.* at 9 (citing Exs. 1023, 1028–1030). Petitioner also filed a motion to transfer the Texas case to the U.S. District Court for the District of Colorado, which has not yet been decided. *Id.* at 10; *see* Ex. 2033, 5 (docket entry 35).

In its Reply, Petitioner argues that, due to a recent decision of the U.S. Court of Appeals for the Federal Circuit, *In re Apple Inc.*, 979 F.3d 1332 (Fed. Cir. 2020), we should not take the November 15, 2021, trial date at “face value” and instead should refer to the Texas court’s “average time to trial” (over two years). Reply 1, 3 (quoting *Fintiv II*, Paper 15 at 13; emphasis omitted). The Federal Circuit in *Apple* granted a petition for mandamus directing the Texas court to transfer a patent infringement case.

979 F.3d at 1335. In doing so, the Court observed that in assessing the factor of “administrative difficulties flowing from court congestion,” “a court’s general ability to set a fast-paced schedule is not particularly relevant,” particularly where “the forum itself has not historically resolved cases so quickly.” *Id.* at 1344. The Court stated that the factor “frequently calls for speculation. For example, scheduled trial dates are often subject to change, and the district court’s anticipated time to trial is significantly shorter than the district’s historical time to trial.” *Id.* at 1344 n.5. According to Petitioner, the *Apple* decision supports its view that trial is unlikely to occur by the currently scheduled trial date and increases the likelihood that Petitioner’s own motion to transfer will be granted (in which case a new trial date would be set). Reply 1–3.

Patent Owner responds that Petitioner’s view is unfounded given the Texas court’s past statements, recent orders from the Texas court regarding the scheduling of trials in light of the COVID-19 pandemic, and the fact that the Texas court recently completed a jury trial. Prelim. Resp. 20–21 (citing Exs. 2002, 2006–2008). Patent Owner further contends that the *Apple* decision is inapplicable because it addressed a different issue—venue transfer—and the Texas court here has confirmed the November 15, 2021, trial date. Sur-Reply 2–3; *see* Ex. 3002, 1 (“The Court confirmed that the Jury Trial date is November 15, 2021.”). With respect to Petitioner’s pending motion to transfer, Patent Owner states that even if the Texas case against Petitioner is transferred, the AT&T case would proceed to trial with the same schedule. Sur-Reply 2; *see* Ex. 1019 (Scheduling Order applying to all of the cases).

The proximity factor in *Fintiv*, on its face, asks us to evaluate our discretion in light of trial dates that have been set in parallel litigations. *See*

Fintiv, Paper 11 at 3, 5 (“*NHK* applies to the situation where the district court has set a trial date to occur earlier than the Board’s deadline to issue a final written decision in an instituted proceeding.”; “When the patent owner raises an argument for discretionary denial under *NHK* due to an earlier trial date, the Board’s decisions have balanced the [six] factors [listed in *Fintiv*].”) (citing *NHK*, Paper 8 (footnote omitted)), 9 (considering situations where “the court’s trial date is earlier than the projected statutory deadline” and “the court’s trial date is at or around the same time as the projected statutory deadline or even significantly after the projected statutory deadline”). We recognize that panels of the Board have assessed this factor on a case-by-case basis. On one hand, the *Fintiv* panel took the district court’s trial schedule at “face value” and declined to question it “absent some strong evidence to the contrary.” *Fintiv II*, Paper 15 at 12–13. On the other hand, the *Sand Revolution* panel was persuaded by the uncertainty in the schedule (including that caused by the parties agreeing to jointly request rescheduling of the trial date on several occasions and the global pandemic) despite a scheduled trial date. *Sand Revolution*, Paper 24 at 8–9. Moreover, as recognized in *Sand Revolution*, “even in the extraordinary circumstances under which the entire country is currently operating because of the COVID-19 pandemic, the Board continues to be fully operational.” *Id.* at 9.

Here, both parties speculate as to the likelihood that the trial date of November 15, 2021, would later be rescheduled in light of circumstances such as docket congestion and the global pandemic, with Petitioner arguing that a reschedule is likely and Patent Owner arguing the opposite. *See* Pet. 8–10; Prelim. Resp. 17–21; Reply 1–3; Sur-Reply 1–3. We cannot ignore the fact that the currently scheduled trial date is more than nine months away and much can change during this time. Further, although we

do not speculate as to the likelihood that Petitioner's motion to transfer the Texas case will be granted, the motion remains pending and would necessitate a new trial date if it were. Accordingly, whether trial in the Texas case takes place before, contemporaneously with, or after our twelve-month final written decision statutory deadline involves at least some assumptions.

This factor looks at the *proximity* of the trial date to the date of our final written decision to assess the weight to be accorded a trial date set earlier than the expected final written decision date. The proximity inquiry is a proxy for the likelihood that the trial court will reach a decision on validity issues before the Board reaches a final written decision. A trial set to occur soon after the institution decision is fairly likely to happen prior to the Board's final written decision, even if the trial date were postponed due to intervening circumstances. Here, however, with trial currently scheduled for less than three months before the due date for the final written decision and a motion to transfer pending,⁴ there is at least some persuasive evidence

⁴ With respect to the AT&T case (for which Petitioner's motion to transfer is irrelevant), there does not appear to be significant overlap between Petitioner's contentions in this proceeding and the invalidity contentions of the defendants in that case (factor 4), as explained below. *See* Prelim. Resp. 25–26; Sur-Reply 2; *infra* Section II.A.4. Thus, under the particular factual circumstances presented, we assess the parties' arguments based primarily on the trial date and circumstances of the Texas case. We also note that in two of the related *inter partes* reviews, we determined that factor 2 was, at most, slightly in favor of exercising our discretion to deny the petitions. *See DISH Network, L.L.C. v. Broadband iTV, Inc.*, IPR2020-01267, Paper 15 at 14–18 (PTAB Jan. 21, 2021), IPR2020-01332, Paper 14 at 21–26 (PTAB Jan. 27, 2021). Although we are slightly closer to the trial date at this time, we discern no meaningful difference here that would merit the same parties, in the same parallel proceeding, being subject to a different result as to factor 2.

that delays are possible. Thus, the efficiency and system integrity concerns that animate the *Fintiv* analysis are not particularly strong. Accordingly, this factor is, at most, slightly in favor of exercising our discretion to deny the Petition.

3. *Investment in the Parallel Proceeding by the Court and the Parties*

If, at the time of the institution decision, the district court has issued substantive orders related to the challenged patent, such as a claim construction order, this fact weighs in favor of denial. *See Fintiv*, Paper 11 at 9–10. On the other hand, if the district court has not issued such orders, this fact weighs against discretionary denial. *Id.* at 10. “[T]he weight to give claim construction orders may vary depending upon a particular district court’s practices. For example, some district courts may postpone significant discovery until after it issues a claim construction order, while others may not.” *Id.* at 10 n.17.

Patent Owner argues that, by the time of this Decision, “the parties and the district court will have invested significant time and resources in the parallel litigation.” Prelim. Resp. 23; *see* Ex. 2033 (Texas court docket sheet as of February 2, 2021). First, Patent Owner contends that the Texas court denied Petitioner’s motion to dismiss under 35 U.S.C. § 101. Prelim. Resp. 24. The Texas court, however, merely stated that it “does not believe this is one of the rare cases where it is appropriate to resolve the Section 101 eligibility of the patents-in-suit as a Rule 12(b) motion to dismiss,” and denied the motion without prejudice to refile “after the opening of fact discovery.” Ex. 2012. The Order does not provide analysis of the challenged claims or their alleged subject matter eligibility. *See id.* Indeed,

the Texas court stated that it “takes no position on whether there are any factual disputes that preclude dismissal at the pleadings stage.” *Id.*

Second, Patent Owner points to the claim construction procedures in the Texas case. Prelim. Resp. 23–24. On November 20, 2020, after receiving briefing from the parties and conducting a *Markman* hearing, the Texas court issued a five-page Order listing constructions for 19 terms in the four asserted patents in the Texas case, but not providing explanations for those constructions. Ex. 3001 (construing 12 of the 19 terms to have their “[p]lain and ordinary meaning”).

Third, Patent Owner argues that the parties exchanged preliminary infringement and invalidity contentions, will have exchanged final contentions before the projected date of this Decision, and “will be engaged in ongoing fact discovery from November 2020 until June 2021.” Prelim. Resp. 24. Patent Owner filed portions of the final invalidity contentions served in the Texas case on January 8, 2021, and portions of the final invalidity contentions served in the AT&T case on January 29, 2021. *See* Exs. 2031, 2032. In a minute entry dated November 13, 2020, the Texas court ordered that “[t]he stay is lifted and discovery can now start in this case.” Ex. 3002, 1. Thus, fact discovery has only just recently begun and does not close until June 2021, well after our Decision whether to institute an *inter partes* review in this proceeding. *See* Ex. 1019, 3. Expert discovery likewise does not even begin until June 2021. *Id.*; *see* Pet. 10 (arguing that “there has been no meaningful fact or expert discovery” in the Texas case).

We are not persuaded that the above actions indicate the type of significant investment that would support exercising our discretion to deny institution. The present circumstances are somewhat analogous to those of *Sand Revolution*. In that case, as here, the parties exchanged preliminary

infringement and invalidity contentions and the district court denied a motion to dismiss, conducted a *Markman* hearing, and entered a short Order construing claim terms. *See Sand Revolution*, Paper 24 at 10. The panel found that “aside from the district court’s *Markman* Order, much of the district court’s investment relates to ancillary matters untethered to the validity issue itself,” and “the district court’s two-page *Markman* Order . . . does not demonstrate the same high level of investment of time and resources as the detailed *Markman* Order in *Fintiv*.” *Id.* at 10–11 (citing *Fintiv*, Paper 15 at 14 (describing a detailed 34-page *Markman* Order)). The panel further observed that “much work remains in the district court case as it relates to invalidity: fact discovery is still ongoing, expert reports are not yet due, and substantive motion practice is yet to come.” *Id.* at 11. The facts of this proceeding are similar in all of those respects, but for the fact that final invalidity contentions have been served in the Texas case. The relevant pages of Petitioner’s final invalidity contentions, however, appear to be identical to those of the preliminary invalidity contentions. *Compare* Ex. 2013, 13–19, *with* Ex. 2031, 18–24. Also, Petitioner’s motion to transfer in the Texas case remains to be decided and there is a possibility that Petitioner may refile its motion to dismiss under 35 U.S.C. § 101, as it was authorized to do after the opening of fact discovery. *See* Ex. 2012. On the current record, we are not persuaded that the level of investment so far by the Texas court and the parties in the Texas case supports exercising our discretion to deny institution.

Petitioner’s diligence in filing its Petition also weighs against exercising our discretion to deny institution. Patent Owner served Petitioner with its complaint in the Texas case on December 19, 2019, identifying claims 1, 12, and 18 of the ’791 patent as allegedly infringed. *See* Pet. 4;

Ex. 2001 ¶¶ 61, 75–78. Patent Owner later served preliminary infringement contentions on April 30, 2020, identifying claims 1–3, 5–12, and 14–18 of the '791 patent as allegedly infringed. *See* Pet. 10; Ex. 3003, 2–3 (also identifying the alleged priority date for the claims). Patent Owner subsequently served amended preliminary infringement contentions on May 15, 2020, again identifying claims 1–3, 5–12, and 14–18 of the '791 patent as allegedly infringed. Ex. 1027, 2–3 (also identifying priority dates for the claims). Petitioner then filed its Petition on July 20, 2020—less than three months after first receiving notice of Patent Owner’s infringement positions for all asserted claims (including those not identified originally in the complaint) and prior to the parties exchanging proposed claim constructions and briefing claim construction issues in the Texas case. *See* Pet. 10; Paper 6, 1; Ex. 1019, 2.

Fintiv explained that “it is often reasonable for a petitioner to wait to file its petition until it learns which claims are being asserted against it in the parallel proceeding,” and stated that, “[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*, Paper 11 at 11. Here, Petitioner filed the Petition shortly after learning the full set of claims Patent Owner is initially asserting and receiving Patent Owner’s preliminary infringement contentions for those claims. *See* Pet. 4, 10; *Fintiv*, Paper 11 at 11 n.21 (citing an earlier case finding that a petitioner was “diligent in filing the petition within two months of [the] patent owner narrowing the asserted claims in the district court proceeding”).

On balance, this factor weighs strongly against exercising our discretion to deny the Petition.

4. *Overlap Between Issues Raised in the Petition and in the Parallel Proceeding*

“[I]f the petition includes the same or substantially the same claims, grounds, arguments, and evidence as presented in the parallel proceeding, this fact has favored denial.” *Fintiv*, Paper 11 at 12. “Conversely, if the petition includes materially different grounds, arguments, and/or evidence than those presented in the district court, this fact has tended to weigh against exercising discretion to deny institution under *NHK*.” *Id.* at 12–13.

Patent Owner argues that Petitioner asserts the same prior art references (Baumgartner, Son, Scheffler, CableLabs, and Baumgartner II) and makes many of the same arguments in its Petition and preliminary invalidity contentions in the Texas case for the same set of claims (i.e., claims 1–3, 5–12, and 14–18). Prelim. Resp. 25–26 (citing Pet. 69–77; Ex. 2013, 13–19). Patent Owner also asserts that Petitioner argued for interpretation of the claim term “Web-based content management system” in this proceeding and in the Texas case. *Id.* at 26 (citing Pet. 14–15; Ex. 2015, 1–5).

The pages of Petitioner’s preliminary invalidity contentions cited by Patent Owner in its Preliminary Response appear to be identical to those of the final invalidity contentions. *Compare* Ex. 2013, 13–19, *with* Ex. 2031, 18–24. Petitioner’s final invalidity contentions further include a claim chart asserting that certain claims are anticipated or rendered obvious by Baumgartner.⁵ Ex. 2031, 105–126. Many of the paragraphs of Baumgartner quoted in the claim chart also are relied upon in the Petition. *See id.*;

⁵ In its preliminary and final invalidity contentions, Petitioner refers to Baumgartner as “Baumgartner II” and refers to Baumgartner II as “Baumgartner I.” *See* Ex. 2013, 8; Ex. 2031, 8.

Pet. 35–59. The final invalidity contentions in the AT&T case likewise include a claim chart asserting that certain claims are anticipated or rendered obvious by Baumgartner and quoting many of the same paragraphs as the Petition. *See* Ex. 2032, 82–165; Pet. 35–59. Unlike Petitioner’s final invalidity contentions, however, the final invalidity contentions in the AT&T case do not appear to assert any obviousness combinations based on Baumgartner, Son, Scheffler, CableLabs, and Baumgartner II. *See* Ex. 2032. Indeed, the final invalidity contentions in the AT&T case do not rely on Scheffler at all. *See id.* at 16 (citing a different reference as “Scheffler”). Thus, there is only minimal overlap (as to cited paragraphs of Baumgartner) with respect to the AT&T case.

According to *Fintiv*,

weighing the degree of overlap is highly fact dependent. For example, if a petition involves the same prior art challenges but challenges claims in addition to those that are challenged in the district court, it may still be inefficient to proceed because the district court may resolve validity of enough overlapping claims to resolve key issues in the petition. . . . The existence of non-overlapping claim challenges will weigh for or against exercising discretion to deny institution under *NHK* depending on the similarity of the claims challenged in the petition to those at issue in the district court.

Fintiv, Paper 11 at 13. Here, although we do not find significant overlap with respect to the AT&T case, there is overlap with respect to the Texas case as to the claims and identified grounds based on Baumgartner, Son, Scheffler, CableLabs, and Baumgartner II. This factor weighs in favor of exercising our discretion to deny the Petition.

5. *Whether the Petitioner and the Defendant in the Parallel Proceeding Are the Same Party*

If the petitioner here was unrelated to the defendant in the parallel proceeding, that might weigh against discretionary denial. *See Fintiv*, Paper 11 at 13–14. Here, however, Petitioner is the defendant in the parallel proceeding. This fact could weigh either in favor of, or against, exercising discretion to deny institution, depending on which tribunal was likely to address the challenged patent first. However, as noted above, we decline to speculate as to whether we are likely to address the challenged patent before the Texas court. *See supra* Section II.A.2. Thus, as to Patent Owner’s arguments regarding the Texas case, this factor is, at most, slightly in favor of exercising our discretion to deny the Petition. To the extent Patent Owner seeks denial based on the AT&T case, this factor weighs against denial because Petitioner is not the same party as any of the defendants in the AT&T case. Overall, because the vast majority of the arguments are based on activity in the Texas case, this factor still slightly favors denial.

6. *Other Circumstances That Impact the Board’s Exercise of Discretion, Including the Merits*

Additional factors we can consider include the merits. *Fintiv*, Paper 11 at 14–15.

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

Id. (footnotes omitted).

As explained below, on the preliminary record, the merits of Petitioner’s case are straightforward and strong as to both of Petitioner’s asserted grounds, and Patent Owner has not yet made a persuasive response to Petitioner’s allegations. Further, although Baumgartner II was before the Examiner during prosecution of the ’791 patent, Petitioner relies on portions of Baumgartner that are not included in Baumgartner II as teaching certain limitations of the challenged claims. *See* Pet. 10–11. As explained herein, we find Petitioner’s arguments persuasive based on the current record. *See infra* Sections II.B, II.F.6.

With respect to *Fintiv* factor 6, Patent Owner contends that Petitioner fails to establish that Scheffler is prior art, that Petitioner’s substantive unpatentability arguments are deficient, and that interpreting one of the terms of claim 1 would require a complex analysis. Prelim. Resp. 27–30. We disagree with those arguments based on the current record for the reasons stated herein. *See infra* Sections II.E.1, II.F.5, II.F.6.

Thus, the merits in this proceeding, taken as a whole, weigh against discretionary denial. *Cf. Sand Revolution*, Paper 24 at 13 (“We determine, on this preliminary record, that Petitioner has set forth a reasonably strong case for the obviousness of most challenged claims. Thus, this factor weighs in favor of not exercising discretion to deny institution under 35 U.S.C. § 314(a).”); *compare with Fintiv II*, Paper 15 at 17 (“It is sufficient that Patent Owner has pointed out that Petitioner’s case, at least as to two of three independent claims, is a close call. . . . The merits, taken as a whole, do not tip the balance in favor of Petitioner and instead also weigh in favor [of] discretionary denial in a balanced assessment of all the circumstances.”).

7. *Holistic Assessment of Fintiv Factors*

We consider the above factors and take “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” *Fintiv*, Paper 11 at 6. On the current record, with trial currently scheduled for less than three months before the final written decision, whether the Texas court actually will hold a trial before, contemporaneously with, or after our final written decision statutory deadline is still uncertain. Further, the Texas court and parties have yet to invest significantly in validity issues that might overlap with the patentability disputes presented to us. Thus, we are unlikely to duplicate work performed by the Texas court. Moreover, Petitioner was diligent in pursuing its Petition, which weighs against exercising our discretion to deny institution. Although there is overlap between the Petition and the invalidity positions Petitioner has indicated it will advance in the Texas case, this is outweighed by the lack of investment in the Texas case. The merits presented in the Petition are strong, at least at this stage of the proceeding. After considering the factors outlined in the precedential order in *Fintiv*, we decline to deny institution under § 314(a).

B. Presentation of the Same or Substantially the Same Prior Art Under 35 U.S.C. § 325(d)

Pursuant to 35 U.S.C. § 325(d), in determining whether to institute an *inter partes* review, “the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office.” The Board evaluates two issues in addressing 35 U.S.C. § 325(d):

(1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of [the] first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.

Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential) (“*Advanced Bionics*”). With respect to the first issue, previously “presented” art includes, among other things, “art provided to the Office by an applicant, such as on an Information Disclosure Statement (IDS), in the prosecution history of the challenged patent.” *Id.* at 7–8. With respect to the second issue, institution generally will be denied if a “petitioner fails to make a showing of material error,” and “[i]f reasonable minds can disagree regarding the purported treatment of the art or arguments, it cannot be said that the Office erred in a manner material to patentability.” *Id.* at 8–9. “[T]his framework reflects a commitment to defer to previous Office evaluations of the evidence of record unless material error is shown.” *Id.* at 9.

The six non-exclusive factors set forth in *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 at 17–18 (PTAB Dec. 15, 2017) (precedential as to § III.C.5, first paragraph) (“*Becton, Dickinson*”), “provide useful insight into how to apply the framework.” *Advanced Bionics*, Paper 6 at 9. Those factors are

(a) the similarities and material differences between the asserted art and the prior art involved during examination; (b) the cumulative nature of the asserted art and the prior art evaluated during examination; (c) the extent to which the asserted art was evaluated during examination, including whether the prior art

was the basis for rejection; (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art; (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

Becton, Dickinson, Paper 8 at 17–18. “If, after review of factors (a), (b), and (d), it is determined that the same or substantially the same art or arguments previously were presented to the Office, then factors (c), (e), and (f) relate to whether the petitioner has demonstrated a material error by the Office.”

Advanced Bionics, Paper 6 at 10. Upon consideration of these factors, we decline to deny institution under § 325(d).

With respect to the first part of the *Advanced Bionics* framework, and *Becton, Dickinson* factor (a) in particular, Patent Owner argues (and Petitioner acknowledges) that CableLabs and Baumgartner II were presented to the Office during prosecution of the ’791 patent. *See* Prelim. Resp. 34; Pet. 10. We agree. The references were cited in IDSs, acknowledged by the Examiner, and appear on the face of the ’791 patent. *See* Ex. 1001, code (56); Ex. 1002, 69–72, 84–88, 111–118, 257–260, 273–280, 286–290. The remaining three references, however—Baumgartner, Son, and Scheffler—and thus the majority of the references relied upon by Petitioner, were not before the Examiner.

Patent Owner contends that the three other references are cumulative to what was considered during prosecution under *Becton, Dickinson* factor (b). Prelim. Resp. 33. Specifically, Patent Owner argues that (1) Baumgartner is cumulative to Baumgartner II and a reference that was cited by the Examiner in the Notice of Allowance during prosecution,

U.S. Patent Application Publication No. 2002/0042921 A1 (Ex. 2022, “Ellis”); (2) Son is cumulative to another reference cited by the Examiner, U.S. Patent Application Publication No. 2002/0104099 A1 (Ex. 2017, “Novak”); and (3) Scheffler is cumulative to CableLabs and another reference cited by the Examiner, U.S. Patent Application Publication No. 2002/0088010 A1 (Ex. 2023, “Dudkiewicz”). Prelim. Resp. 33–40.

Claims 1–18 of the ’791 patent were not subject to any rejections during prosecution. In the Notice of Allowance dated October 23, 2017, the Examiner stated that “the prior art of record fails to disclose” the full recited method of claim 1. Ex. 1002, 505–518. The Examiner identified Novak, Dudkiewicz, and Ellis as “the closest cited prior art” and quoted the abstract of each reference as what the reference “discloses.” *Id.* at 514–515; *see* Ex. 2017, code (57); Ex. 2022, code (57); Ex. 2023, code (57). For example, Novak discloses a system in which “an individual can upload media objects to a server and specify a manner in which the media objects are to be played as a media program,” Dudkiewicz discloses “metadata for a programming event . . . generated through an interactive process,” and Ellis discloses “systems and methods . . . for retrieving . . . on-demand media data that is provided by separate data sources.” Ex. 1002, 514–515.

With respect to Baumgartner, Patent Owner argues that much of the reference (e.g., Figures 1–23b) overlaps with Baumgartner II, Petitioner relies mainly on those shared portions in the Petition, and Petitioner relies on both references in the alternative in its preliminary invalidity contentions in the Texas case. Prelim. Resp. 37–39; *see* Pet. 34, 78 (acknowledging that the “majority of the[] references’ disclosures overlap[s]”). We agree that the overall VOD system as shown in Figure 1 and a considerable portion of the written description of the references is the same (with minor typographical

differences). *Compare* Ex. 1004 ¶¶ 2–4, 18–42, 49–157, Figs. 1–23b, *with* Ex. 1025 ¶¶ 2–4, 14–38, 44–152, Figs. 1–23b. Further, Baumgartner is a continuation of an application filed on the same day as the application that published as Baumgartner II (although the two are not related), and the references share one of the same named inventors. *See* Ex. 1004, codes (63), (75); Ex. 1025, codes (22), (75).

Importantly, though, Petitioner relies on portions of Baumgartner that are not present in Baumgartner II—namely, Baumgartner’s discussion of a guide with vendor-specific screens (e.g., for Starz on Demand) shown in Figures 24–27, using “vendor-specific interface elements” and action “definitions” provided by the vendor to populate those screens.⁶ *See* Pet. 23–26, 38, 44, 52–53 (citing Ex. 1004 ¶¶ 159, 164, 167, 168, 175, 177–178, 187, 191, Figs. 24, 26–28); Prelim. Resp. 38. In Petitioner’s proposed combination of Baumgartner with the other references, the information is still provided by the vendor itself, but in the form of “metadata” supplied with the video content. *See* Pet. 11 (arguing that the references not considered during prosecution (Baumgartner, Son, and Scheffler) teach “the ’791 patent’s purportedly ‘inventive’ features,” i.e., that “video-on-demand metadata—including the metadata used to generate a hierarchical menu—should be provided by the original content provider”), 35, 41–44. Petitioner also relies on portions of Baumgartner that are not present in Baumgartner II as teaching (1) access control to VOD content, in asserting that the references in combination teach determining content availability based on “first time information,” as recited in steps (a) and (d) of claim 1;

⁶ Overall, paragraphs 158–200 and Figures 24–29 in Baumgartner are not present in Baumgartner II.

(2) “a plurality of different video display templates, including a first video display template,” as recited in step (c) of claim 1; and (3) a video display template “configured to provide navigation buttons,” as recited in claim 7. *See id.* at 46, 54–55, 61–62 (citing Ex. 1004 ¶¶ 159, 163, 167–169, 177–179, 182, 185–186, 192, 199, Figs. 24, 26–28).

Patent Owner attempts to discount these disclosures by pointing to two general statements, present in both references, that different vendors may provide different content. Prelim. Resp. 38–39 (citing Ex. 1025 ¶¶ 155–156). Those statements, however, are not nearly as detailed as the disclosures in Baumgartner that Petitioner discusses in the Petition. Thus, we cannot say that Baumgartner is substantially the same or cumulative to Baumgartner II in its relevant aspects (i.e., the disclosures on which Petitioner relies as allegedly teaching various limitations of the challenged claims).

With respect to Scheffler, Patent Owner contends that the reference is cumulative to CableLabs because Petitioner only relies on the two references “in the alternative.” Prelim. Resp. 39–40 (citing Pet. 42). Although true for some arguments in the Petition, it is not true for all. Rather, Petitioner relies extensively on statements present only in Scheffler suggesting the desirability of metadata being supplied by a content provider along with the associated video content and providing both together in a VOD system. *See, e.g.*, Pet. 30–32, 42–43, 73–76. Further, Petitioner relies primarily on the combination of Baumgartner and Scheffler as teaching step (d) of claim 1 pertaining to controlling access based on time information. *Id.* at 55–56. Thus, we do not agree that Scheffler is cumulative to CableLabs.

With respect to Patent Owner’s remaining arguments regarding cumulateness, we do not agree that Baumgartner, Son, and Scheffler are

cumulative to Ellis, Novak, and Dudkiewicz, respectively. Patent Owner points to various arguments in the Petition and states that the Examiner “considered” or “relied on” Ellis, Novak, and Dudkiewicz “for the same concepts.” Prelim. Resp. 35–37. The only evidence for that, however, is the Examiner’s quotation of the abstracts from the references. *See id.* The Examiner never rejected the claims and made no factual findings tying any disclosure in the three references to any limitation in the claims.

Finally, with respect to *Becton, Dickinson* factor (d), we note that because the claims were never rejected and the Examiner made only general statements about the disclosures of Ellis, Novak, and Dudkiewicz, we do not find any overlap between arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art. *See Ex. 1002, 505–518.* We agree with Petitioner that the Office has not “had the opportunity to assess the patentability” of the challenged claims based on the combination of Baumgartner, Son, Scheffler, and CableLabs. *See Pet. 10–11.*

Under the first part of the *Advanced Bionics* framework, we conclude that the same or substantially the same prior art was not previously presented to the Office. Nor were the same or substantially the same arguments previously presented to the Office. Accordingly, we need not reach the second part of the framework. After considering the *Advanced Bionics* framework and the appropriate *Becton, Dickinson* factors, we conclude that the circumstances of this case, on the record presented, do not warrant exercise of our discretion to deny institution based on § 325(d).

C. Legal Standards

A claim is unpatentable for obviousness if, to one of ordinary skill in the pertinent art, “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made.” *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 406 (2007) (quoting 35 U.S.C. § 103(a) (2006)). The question of obviousness is resolved on the basis of underlying factual determinations, including “the scope and content of the prior art”; “differences between the prior art and the claims at issue”; and “the level of ordinary skill in the pertinent art.” *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Additionally, secondary considerations, such as “commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevancy.” *Id.* When conducting an obviousness analysis, we consider a prior art reference “not only for what it expressly teaches, but also for what it fairly suggests.” *Bradium Techs. LLC v. Iancu*, 923 F.3d 1032, 1049 (Fed. Cir. 2019) (citation omitted).

A patent claim “is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR*, 550 U.S. at 418. An obviousness determination requires finding “both ‘that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.’” *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367–68 (Fed. Cir. 2016) (citation omitted); *see KSR*, 550 U.S. at 418 (for an obviousness analysis, “it can be important to identify a reason that

would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does”).

A petitioner’s assertion of obviousness “cannot employ mere conclusory statements. The petitioner must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016) (citing *KSR*, 550 U.S. at 418).

D. Level of Ordinary Skill in the Art

Petitioner states that “[f]or purposes of this [P]etition,” it assumes an effective filing date of the challenged claims of the ’791 patent of July 30, 2004. Pet. 7. Petitioner asserts that a person of ordinary skill in the art at that time would have had a “degree in computer engineering, computer science, information systems, or a similar discipline, along with 3–4 years of experience with the design and/or implementation of video-on-demand systems,” and would have been “aware of and generally knowledgeable about the systems used to upload content to a video-on-demand server, how such a server can be structured and operates, the types of metadata employed by video-on-demand systems, and the types of user interfaces that are commonly used by such systems.” *Id.* at 34 (citing Ex. 1003 ¶¶ 34–37).

Patent Owner argues that a person of ordinary skill in the art would have had “either (1) a bachelor’s degree in electrical or video engineering and/or computer science with experience in digital television or (2) at least five to ten years of experience in the design and/or implementation of digital television and video on demand.” Prelim. Resp. 42. Neither party provides substantive argument in favor of its proposed level of ordinary skill in the art or explains how the difference in proposed levels would impact the

obviousness analysis. Based on the record presented, including our review of the '791 patent and the types of problems and solutions described in the '791 patent and cited prior art, we agree with Petitioner's proposed definition of the level of ordinary skill in the art and apply it for purposes of this Decision.⁷ *See, e.g.*, Ex. 1001, col. 1, l. 61–col. 3, l. 13 (describing in the “Background of Invention” section of the '791 patent various cable television and VOD systems where “a viewer can enter a selection choice for a video program via the remote control unit to the set-top box and have the desired video program delivered instantaneously for display on the TV”).

E. Claim Interpretation

We interpret the challenged claims

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), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.

37 C.F.R. § 42.100(b) (2019). “In determining the meaning of [a] disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006). Claim terms are given their plain and ordinary meaning as would be understood by a person of ordinary skill in the art at the time of the invention and in the

⁷ To the extent the parties dispute the level of ordinary skill in the art for the '791 patent or the effective filing date of any of the challenged claims, the parties are encouraged to address the issue in their papers during trial.

context of the entire patent disclosure. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). “There are only two exceptions to this general rule: 1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.” *Thorner v. Sony Comput. Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

Petitioner addresses the interpretation of three claim terms in its Petition. Pet. 14–17. Patent Owner does not propose different interpretations for the identified terms (or any other terms) in its Preliminary Response. The Texas court adopted constructions for certain terms, which we have considered. *See* Ex. 3001. We conclude that only two terms require express interpretation at this time. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (“Because we need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy,’ we need not construe [a particular claim limitation] where the construction is not ‘material to the . . . dispute.’” (citation omitted)).

1. “Web-Based Content Management System”

Petitioner argues that “Web-based content management system” in claim 1 should be interpreted to mean “a system accessible over the Internet, including the Web, for managing content.” Pet. 14–15. Patent Owner states that interpreting the term “would be time intensive and require extensive analysis,” but does not explain why Petitioner’s proposed interpretation is incorrect. *See* Prelim. Resp. 29. On this record, we agree with and adopt Petitioner’s proposed interpretation. The Specification of the ’791 patent does not expressly define the term, but describes web-based content

management system 40 in a consistent manner. *See, e.g.*, Ex. 1001, col. 9, ll. 42–48 (system 40 “enabl[es] an individual user to upload content from their computer via a web browser to display a consumer-generated video ad on TV”), col. 10, ll. 5–10 (system 40 “includes a plurality of functional components to allow consumers to create and manage their own classified ads as interactive television content”), col. 10, l. 46–col. 11, l. 24 (“The Classified Content Management System enables users to upload text, audio, video, and/or image files for classified ads in industry-standard file formats and have it converted into video display ads compatible with the VOD Content Delivery System.”), Figs. 2A, 2B. The Texas court also adopted the same construction that Petitioner proposes in this proceeding.⁸ Ex. 3001, 2. And another district court construed a similar term in the ’336 patent using “server” rather than “system”—“Web-based content management server”—to mean “a server accessible over the Internet, including the Web, for managing content.” Ex. 1017, 61–70. The parties are encouraged to address the interpretation of “Web-based content management system” in their papers during trial.⁹

⁸ In the Texas case, Petitioner proposed a slightly different construction of “a system accessible over the Internet, including the Web, for managing content. The system allows the content provider to manage content.” Ex. 2015, 1, 3–5. Patent Owner proposed the construction that Petitioner proposes in this proceeding, and the Texas court agreed with Patent Owner. *See id.*; Ex. 3001, 2.

⁹ We note that arguing that a term should be accorded its plain and ordinary meaning, without providing a position as to what an ordinarily skilled artisan would have considered to be the plain and ordinary meaning, is not helpful in resolving disputes between the parties regarding the proper interpretation of a term.

2. “*Hierarchically Arranged Category Information and Subcategory Information*”

Petitioner contends that “hierarchically arranged category information and subcategory information” in claim 1 should be given its “plain and ordinary meaning.” Pet. 15–16. Patent Owner does not address interpretation of the term in its Preliminary Response. We conclude that no express interpretation is necessary to determine whether to institute an *inter partes* review.

3. “*TV Equipment*”

Petitioner argues that “TV equipment” in claim 1 should be interpreted to mean “[e]quipment that receives a video signal from a cable service provider and displays the video content to the subscriber.” Pet. 16–17. Patent Owner does not address interpretation of the term in its Preliminary Response. On this record, we agree with and adopt Petitioner’s proposed interpretation, as it is consistent with the intrinsic evidence of record. Claim 1 recites a video server configured to supply video content “for transmission to a set top box operatively connected to *TV equipment* of a television service subscriber,” a “set top box operatively connected to respective *TV equipment* of a respective television service subscriber,” and a “predetermined video-on-demand application . . . displaying [a] video-on-demand content menu at the respective *TV equipment* of the respective television service subscriber,” where selected video content is received and viewed “on the respective *TV equipment* of the respective television service subscriber” (emphasis added). The Specification similarly describes, for example, “a Video Server for storing video content encoded as video content elements and for supplying a requested video content element

in response to [a] VOD Application Server for delivery to the TV equipment of the viewer” and “a VOD Application Server . . . for delivering from the Cable Head End classified ad title and topical area listings data generated from the meta data for the classified ad content to be displayed on the TV equipment of viewers.” Ex. 1001, col. 3, ll. 17–52, col. 4, ll. 29–67, col. 9, l. 63–col. 10, l. 4. And another district court construed “TV equipment” as used in the ’336 patent claims to mean the same as what Petitioner proposes in this proceeding.¹⁰ Ex. 1017, 54–60.

F. Obviousness Ground Based on Baumgartner, Son, Scheffler, and CableLabs

Petitioner contends that claims 1, 2, 5–12, and 14–18 are unpatentable over Baumgartner, Son, Scheffler, and CableLabs under 35 U.S.C. § 103(a), citing the testimony of Samuel H. Russ, Ph.D., as support. Pet. 17–77 (citing Ex. 1003). We are persuaded that Petitioner has established a reasonable likelihood of prevailing on its asserted ground for the reasons explained below.

1. Baumgartner

Baumgartner discloses “an interactive television program guide application . . . that allows a video-on-demand vendor to brand or sponsor the video-on-demand content that is made available through the interactive television program guide application.” Ex. 1004 ¶ 7. For example, a vendor, such as HBO, can “have a particular video-on-demand screen (e.g., an HBO video-on-demand listings screen) within the interactive

¹⁰ The Texas court construed “TV equipment” to have its “[p]lain and ordinary meaning.” Ex. 3001, 4.

television program guide application that is branded using that vendor's motif on the video-on-demand display (e.g., the HBO logo and color scheme, etc.).” *Id.* ¶ 6. To do so, the interactive television application has “VOD interface templates” that allow it to be “easily customized” for a particular vendor. *Id.* ¶ 12.

Figure 1 of Baumgartner is reproduced below.

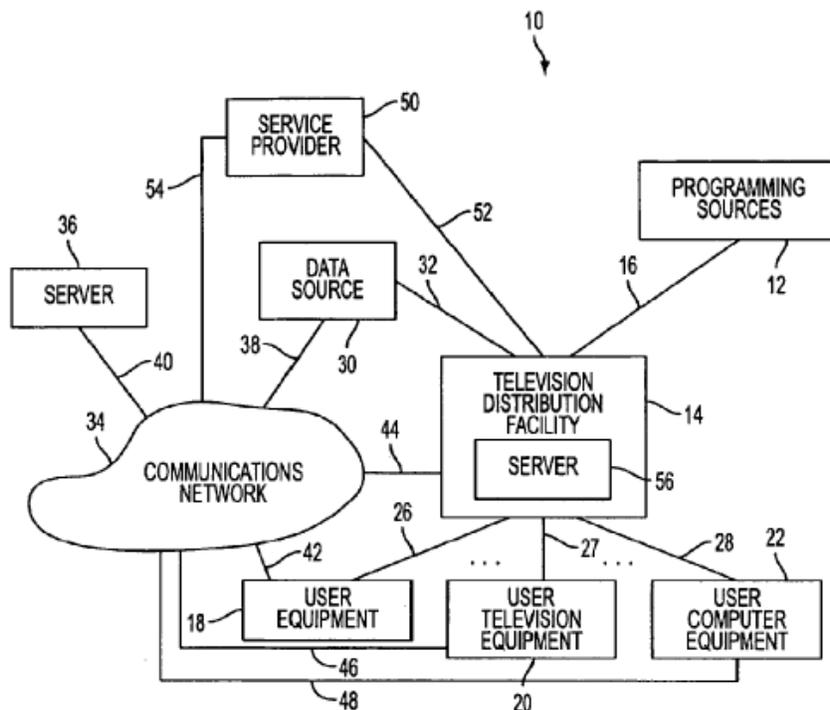


FIG. 1

Figure 1 depicts interactive television system 10 comprising television distribution facility 14 (e.g., a cable system head end) providing video content to various user equipment devices 18, 20, and 22 (e.g., a set-top box connected to a television) that execute the interactive television application. *Id.* ¶¶ 52, 53, 56, 65, 66. “Content such as television programming and other media, such as digital music, may be provided from programming sources 12 to television distribution facilities such as television distribution facility 14 using communications path 16.” *Id.* ¶ 49. “Programming sources 12

may be any suitable sources of television and music programming, such as television and music production studios, etc.” *Id.* Data source 30 comprises

a program listings database that is used to provide the user equipment with information for the interactive television program guide, such as scheduled broadcast times, titles, channels, ratings information (e.g., parental ratings and critic’s ratings), detailed title descriptions, genre or category information (e.g., sports, news, movies, etc.), information on actors and actresses, running times, etc.

Id. ¶ 54. VOD content can be “stored on server 56 or server 36 or at service provider 50 and may be provided to the user equipment when requested by users.” *Id.* ¶¶ 62, 159.

The interactive television application provides a display screen showing a menu of choices for the user to select, such as a listing of broadcast programs currently available and “Video on Demand.” *Id.* ¶¶ 56, 98, 99, 123, Fig. 7. Selecting the VOD option causes the application to present a series of screens allowing the user to navigate by category and title to select particular content. *Id.* ¶¶ 123–127, Figs. 14 (video-on-demand categories screen 202 with selectable options 212, such as “Movies A–Z”), 15 (subcategory selection screen 214 with options 220, such as “Action” and “Comedy”), 16 (display screen 222 with list 226 of titles 230), 17a (screen 232 with information 236 about the content, such as title and a text description).

Baumgartner discloses providing branded VOD programming from various vendors to user equipment devices via television distribution facility 14. *Id.* ¶ 159. The interactive television application “display[s] vendor-specific interface screens for each vendor” with “vendor-specific interface elements” particular to the respective vendor, such as a specific logo or color scheme. *Id.* ¶¶ 159–160. A vendor can provide the

vendor-specific interface elements to a “remote server” via “internet file transfer.” *Id.* ¶ 187. The “[v]endor-specific interface elements may be collected centrally (e.g., at data source 30) and then distributed to a remote server at a distribution facility (e.g., server 56 at television distribution facility 14)” for distribution to user equipment devices. *Id.*

The interactive television application first provides a display screen showing various VOD vendors for the user to select, such as HBO and Starz. *Id.* ¶ 164, Fig. 24. Selecting a particular option, such as Starz, causes the application to present a series of screens allowing the user to navigate by category and title to select particular content. *Id.* ¶¶ 164–177. Figure 26 of Baumgartner is reproduced below.

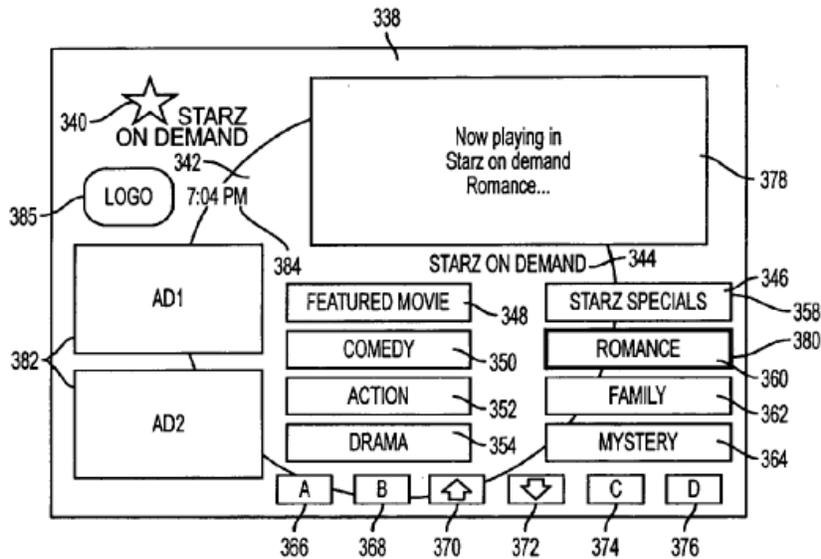


FIG. 26

Figure 26 depicts vendor-specific screen 338 with vendor-provided content (e.g., advertisement, video preview) in window 378 and vendor-specific interface elements (i.e., vendor logo 340, vendor screen background 342, vendor menu title 344, vendor option labels 346). *Id.* ¶¶ 167, 170. The “vendor-specific interface elements may also include definitions that define the appearance of elements” and “specify an action or behavior that results

from the selection of an option or icon element by the user.” *Id.* ¶ 168.
Selecting “Comedy” option 350 causes the application to present another screen, shown in Figure 27 reproduced below.

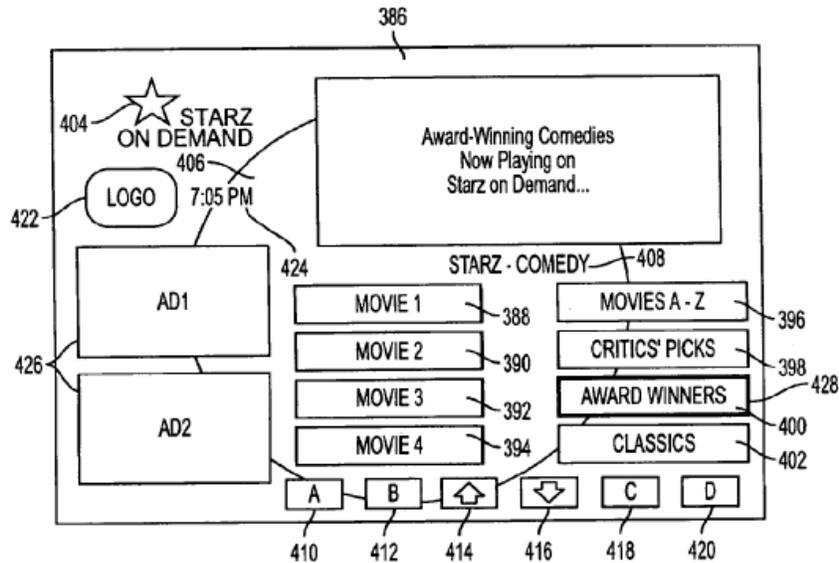


FIG. 27

Figure 27 depicts “Starz-Comedy” screen 386 with vendor-specific interface elements, movie titles, and further categories for the user to select. *Id.* ¶¶ 175–176.

Baumgartner discloses that the interactive television application “generate[s] a vendor-specific interface screen by starting with an interface template that includes . . . invariant, non-vendor-specific interface elements,” such as advertisements or a clock, and “then incorporat[ing] the vendor-specific elements into the template to generate a vendor-specific screen.” *Id.* ¶¶ 173, 178.

Figure 28 of Baumgartner is reproduced below.

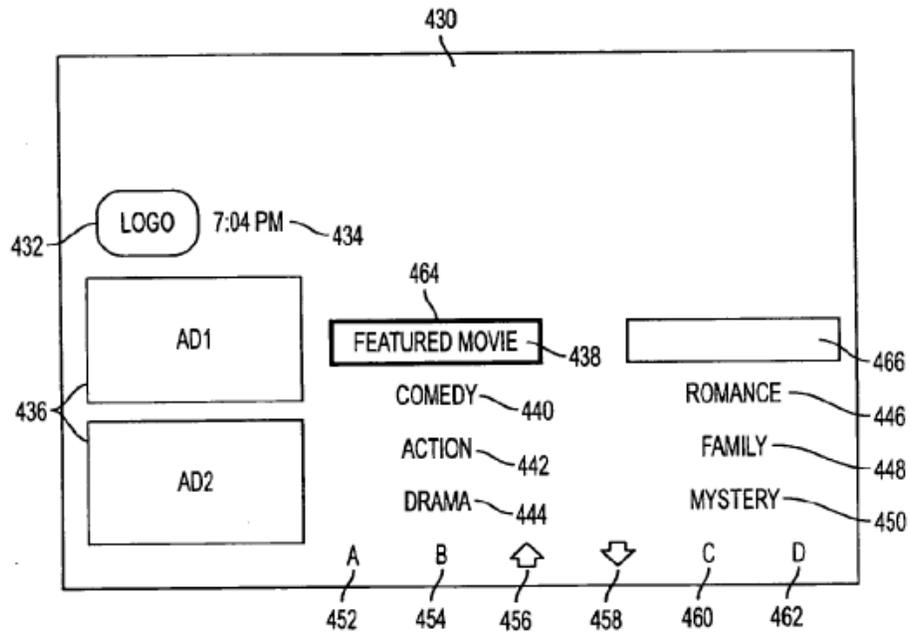


FIG. 28

Figure 28 depicts “an illustrative interface template screen prior to insertion or incorporation of the vendor-specific interface elements.” *Id.* ¶ 179.

2. *Son*

Son discloses “a method and apparatus for preprocessing and postprocessing content in an interactive information distribution system.” Ex. 1005, col. 1, ll. 23–25.

Figure 1 of Son is reproduced below.

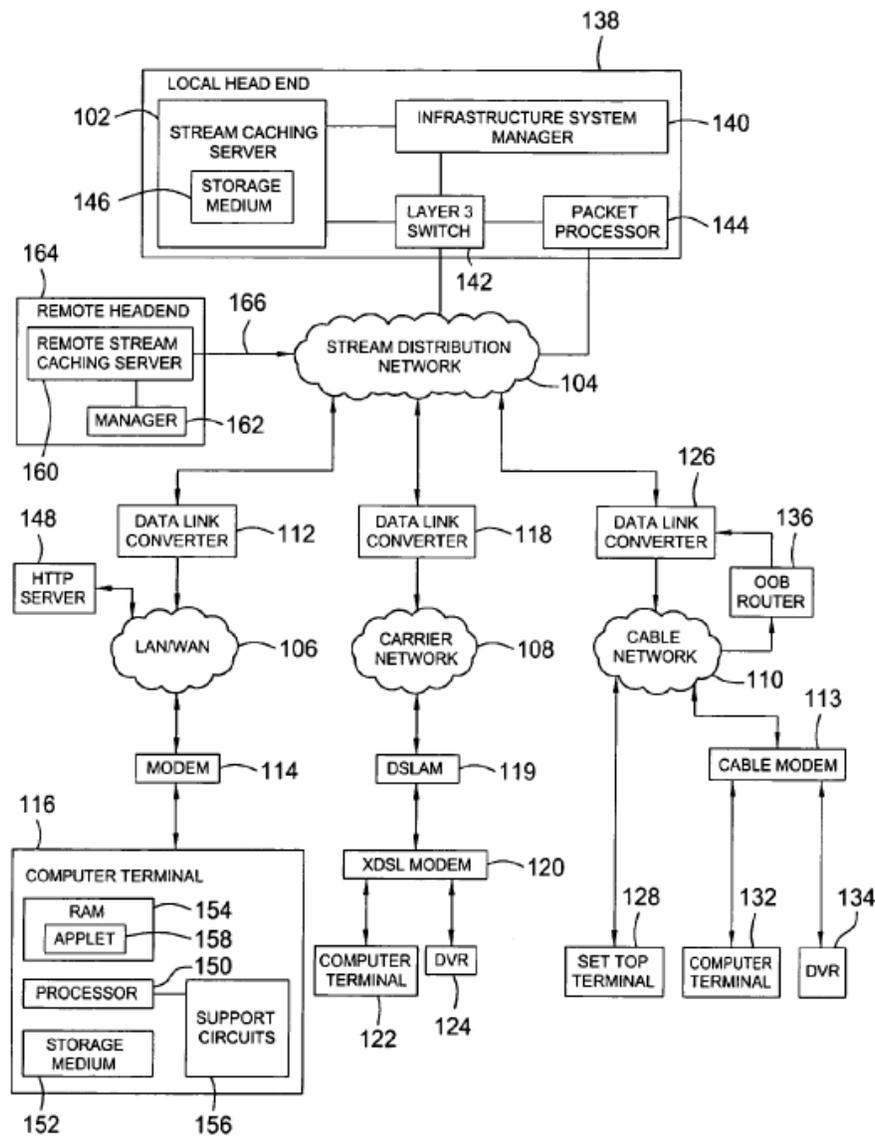


FIG. 1

Figure 1 depicts interactive information distribution system 100 implemented as a VOD system where “a user may request and receive a particular content selection, e.g., video, movie or programming content, from a service provider.” *Id.* at col. 2, ll. 45–53. Stream caching server 102 receives content and provides it to user devices, such as computer terminal 122 or set top terminal 128, upon request over stream distribution network 104. *Id.* at col. 2, ll. 45–57, Fig. 1. “[S]tream caching server 102 receives,

stores and streams content in accordance to an Internet Protocol (IP).” *Id.* at col. 2, ll. 57–58. A user may upload content from computer terminal 116 using applet 154¹¹ downloaded from HTTP server 148. *Id.* at col. 3, ll. 10–14, col. 4, ll. 46–49. Applet 154 preprocesses the content, “encapsulate[s it] into a format that is optimal for the stream caching server 102,” and uploads it to stream caching server 102 via HTTP server 148. *Id.* at col. 3, ll. 14–16, 43–45, col. 4, ll. 28–30. Son discloses that the preprocessing may “include the creation of metadata” containing “a variety of information about the content to be stored on the stream caching server 102 and streamed to a viewer or subscriber terminal. One embodiment of the metadata is in the form of a data structure that is prepended prior to a file associated with the content.” *Id.* at col. 4, ll. 52–58. Metadata may, for example, “identify the content [by] title, author, [or] genre of content,” or “indicate the type of content.” *Id.* at col. 4, ll. 59–67.

3. *Scheffler*

Scheffler is a technical paper describing “issues and requirements associated with server ingest of broadcast content and content propagation” and “how [Television on Demand (TOD)] content is managed through the creation and distribution of enhanced metadata formats in an environment that is controlled by studios, distributors, and cable operators.” Ex. 1006, 1. *Scheffler* describes how content is ingested in VOD, Subscription VOD, and TOD systems. *Id.* at 2–3. “TOD enables cable operators to provide on demand delivery of live or pre-recorded broadcast television services as well

¹¹ Although labeled with the number 158 in Figure 1, Son refers to the applet as “applet 154” and the random access memory (RAM) in which it is stored as “RAM 154.” Ex. 1005, col. 3, ll. 7–25, col. 4, ll. 52–53.

as the movie and subscription-based content that VOD/SVOD offers.” *Id.* at 3. Scheffler states that as the relationships between the various participants (e.g., content owners, broadcast and cable networks, multiple-system operators (MSOs)) become more complex, “the rules of ‘how,’ ‘when,’ and ‘by whom’ content may be viewed” (embodied in metadata associated with video content) also become more complex. *Id.* at 6. Thus, “[r]ules should be entered and applied as early in the process as possible.” *Id.*

Scheffler states that “[t]he Video-on-Demand Content Specification as published by CableLabs has become the de-facto standard of how metadata is created and how it can incorporate many of the rules necessary to describe how on-demand content is to be handled.” *Id.* at 7. Scheffler describes two types of metadata. *Id.* First, “[c]ontent metadata includes program specific things such as a unique identifier, title, rating, description, time, actors, directors and crew, category, trailer file names, poster file names, etc.” *Id.* Content metadata “does not change, no matter who, what, when, or where it is distributed,” so it “could clearly be embedded in the actual content file and would stay with the file no matter where it goes.” *Id.* In Scheffler’s disclosed system, “[t]he content specific metadata is created at the earliest possible point in the production and distribution chain. The best place for this is at the studio or encoding provider.” *Id.* at 8. Second, “rules-specific metadata” pertains to “any specific restrictions on the distribution and sale of th[e] content,” such as what advertisements to display with the content. *Id.* at 7. “The rules-specific metadata can be created and adjusted at any point in the production and distribution chain, but would typically be originated at the same point the content is generated.” *Id.* at 8.

Figure 3-2 of Scheffler is reproduced below.

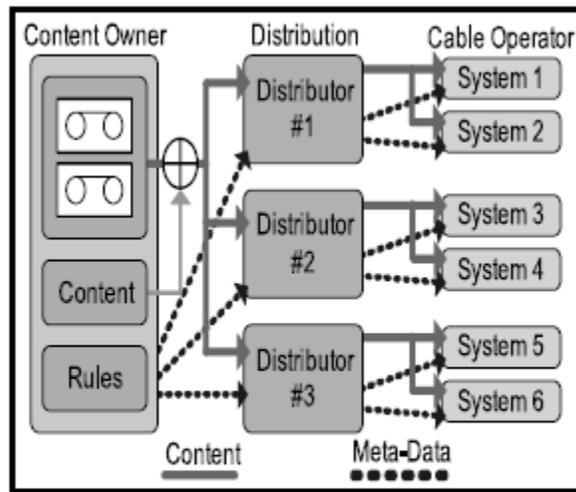


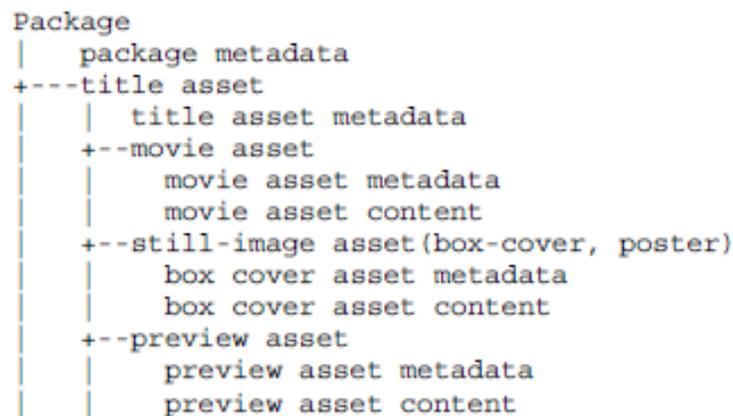
Figure 3-2 Metadata Flow to Multiple Downstream Paths

Figure 3-2 depicts “multiple downstream paths . . . to both multiple distributors and cable systems” for video content. *Id.* Both content metadata and rules-specific metadata are “sent along the same path as the actual content” (from the content owner to content distributors to cable operators). *Id.* “At each step along the way, the rules can become more restricted, but cannot be less restricted. . . . Each system along the path is responsible for obeying the rules imposed upstream, and can expect each system downstream to obey the rules it passes on.” *Id.* “When they reach the cable system, the TOD menu or [electronic program guide (EPG)] is built using these rules for the content received. By using this approach, the menus for the STB can be automatically and dynamically constructed.” *Id.*

4. CableLabs

CableLabs is a technical specification titled “CableLabs Video-on-Demand Content Specification Version 1.1,” created by Cable Television Laboratories, Inc., and describing “the specific assets (content

and metadata) used by the VOD service that can be distributed using the Asset Distribution Interface” (ADI). Ex. 1009, 1, 5. CableLabs describes metadata as “descriptive data associated with a content asset package or file” that “may vary in depth from merely identifying the content package title or information to populate an EPG to providing a complete index of different scenes in a movie or providing business rules detailing how the content package may be displayed, copied, or sold.” *Id.* at 7. CableLabs includes the following diagram:



The above diagram shows “[t]he format of the asset structure within the ADI package for [a] Title asset.” *Id.* at 8.

CableLabs describes various types of metadata for video content. For example, metadata can specify the title, a text description and summary, and the “period of time and the maximum number of views over the period of time.” *Id.* at 10–16. The metadata also can include “[a] nested list of human readable categories and sub-categories which effect how the [user interface (UI)] presents the asset.” *Id.* at 13. “The value will contain an ordered sequence of components, each component separated using a ‘/’. Each line effectively represents a ‘categorization’ for the Title.” *Id.* CableLabs provides the following example of such a list: “<App_Data App=’MOD’ Name=’Category’ Value=’Movies/Comedy’/>.” *Id.*

5. *Whether Petitioner Has Established a Reasonable Likelihood That Scheffler is a Prior Art Printed Publication*

As an initial matter, we must determine whether Petitioner has shown sufficiently for institution that Scheffler is a prior art printed publication under 35 U.S.C. § 102. *See* Pet. 7–8, 29.

The determination of whether a document is a “printed publication” under 35 U.S.C. § 102 “involves a case-by-case inquiry into the facts and circumstances surrounding the reference’s disclosure to members of the public.” *In re Klopfenstein*, 380 F.3d 1345, 1350 (Fed. Cir. 2004). “Because there are many ways in which a reference may be disseminated to the interested public, ‘public accessibility’ has been called the touchstone in determining whether a reference constitutes a ‘printed publication’ bar under 35 U.S.C. § 102(b).” *Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1348 (Fed. Cir. 2016) (citing *In re Hall*, 781 F.2d 897, 898–99 (Fed. Cir. 1986)). “A reference will be considered publicly accessible if it was ‘disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence, can locate it.’” *Id.* (citing *Kyocera Wireless Corp. v. ITC*, 545 F.3d 1340, 1350 (Fed. Cir. 2008)). “[A] work is not publicly accessible if the only people who know how to find it are the ones who created it.” *Samsung Elecs. Co. v. Infobridge Pte. Ltd.*, 929 F.3d 1363, 1372 (Fed. Cir. 2019). However, “a petitioner need not establish that specific persons actually accessed or received a work to show that the work was publicly accessible.” *Id.* at 1374. “In fact, a limited distribution,” such as at a trade show or conference, “can make a work publicly accessible under certain circumstances.” *Id.* The U.S. Court of Appeals for the Federal Circuit has “interpreted § 102 broadly, finding that even relatively obscure

documents qualify as prior art so long as the relevant public has a means of accessing them.” *GoPro, Inc. v. Contour IP Holding LLC*, 908 F.3d 690, 693 (Fed. Cir. 2018).

“[A]t the institution stage, the petition must identify, with particularity, evidence sufficient to establish a reasonable likelihood that the reference was publicly accessible before the critical date of the challenged patent and therefore that there is a reasonable likelihood that it qualifies as a printed publication.” *Hulu, LLC v. Sound View Innovations, LLC*, IPR2018-01039, Paper 29 at 13, 21 (PTAB Dec. 20, 2019) (precedential (“*Hulu*”). The reasonable likelihood standard is “a higher standard than mere notice pleading,” but “lower than the ‘preponderance’ standard to prevail in a final written decision.” *Id.* at 13.

Petitioner argues that Scheffler is a prior art printed publication under 35 U.S.C. §§ 102(a) and (b) because it “was included as part of the 2003 [National Cable and Telecommunications Association (NCTA)] Technical Papers,” which “were published, distributed, and made available to thousands of NCTA members by at least June 2003,” citing as support a declaration from Robert Scheffler (the author of Scheffler and a former employee of Broadbus Technologies, Inc. (“Broadbus”)) and an affidavit of Christopher Butler (the Office Manager of the Internet Archive). Pet. 29 (citing Ex. 1008 ¶¶ 5–16; Ex. 1032).

Mr. Scheffler testifies that the NCTA Annual Convention and International Exposition is a large annual trade show with thousands of attendees in the cable industry, such as “engineers and architects working for large cable companies, or other vendors and industry affiliates.” Ex. 1008 ¶¶ 5, 7. Mr. Scheffler states that he attended every year from 1999 to 2018. *Id.* ¶ 6. He testifies that he authored, submitted, and presented Scheffler as a

paper at the June 2003 show in Chicago, Illinois. *Id.* ¶¶ 8–10, Ex. A.¹²

Mr. Scheffler states that every year, “the NCTA would provide copies of the [Technical Paper] Proceedings to both its membership and any non-member paper authors a month or two in advance of the show,” and provides a copy of the 2003 Proceedings, which includes Scheffler. *Id.* ¶ 13, Ex. B.

According to Mr. Scheffler, the NCTA, at various times, provided copies of the Proceedings to NCTA members and authors in paper, on a CD, or by emailing a download link. *Id.* ¶ 14. He does not recall which method was used for the 2003 Proceedings, but states that he “attended the NCTA national shows for nearly 20 years, and every year either [he] or a NCTA member that [he] was working with received the Proceedings in advance in paper form, on a CD, or via a download link.” *Id.* Finally, Mr. Scheffler testifies that he presented Scheffler during a panel at the 2003 show attended by 150 to 200 attendees. *Id.* ¶ 15.

Mr. Butler testifies as to the archive practices of the Internet Archive Wayback Machine and provides copies of (1) two 2003 Broadbus web page press releases describing Mr. Scheffler’s work and the NCTA show, and (2) a 2003 web page listing “NCTA Technical Papers 2003” for purchase from the National Show Retail Store. Ex. 1032.

Patent Owner argues that Petitioner has not established a reasonable likelihood that Scheffler is a prior art printed publication, asserting that Petitioner fails to include sufficient explanation of the evidence cited in the Petition and disputing each piece of evidence submitted by Petitioner individually. Prelim. Resp. 47–51. Patent Owner contends that Scheffler

¹² The parties are reminded that evidence must be filed individually as numbered exhibits, rather than attachments to another exhibit. *See* 37 C.F.R. § 42.63.

itself “is undated and does not bear any indicia of publication or dissemination, such as a copyright date, [International Standard Book Number (ISBN)] number, etc.,” and that Mr. Scheffler’s testimony is uncorroborated by the other evidence. *Id.* at 48–49. In particular, Patent Owner argues that the Wayback Machine web pages provided with Mr. Butler’s declaration do not corroborate that Scheffler is the same article that Mr. Scheffler allegedly presented at the NCTA show, and points out that the copy of the 2003 Proceedings provided by Mr. Scheffler bears a 2015 (not 2003) copyright date. *Id.* at 49–50.

We conclude, based on the current record, that Mr. Scheffler’s declaration and supporting Wayback Machine web pages collectively are sufficient to meet the reasonable likelihood standard, and that Petitioner includes sufficient explanation in the Petition for its main theory as to *how* Scheffler was publicly accessible—namely, that it was included in and made available to NCTA members via the technical papers for the 2003 NCTA show. *See* Pet. 29. Although Scheffler itself does not have a copyright date¹³ or ISBN number, “indicia on the face of a reference, such as printed dates and stamps,” are not required in all instances; rather, they are “considered as part of the totality of the evidence” in determining whether a petitioner has met the reasonable likelihood standard. *Hulu*, Paper 29 at 17–18. Here, Mr. Scheffler explains in detail how he authored Scheffler and presented it at a panel at the 2003 NCTA show with numerous attendees. Ex. 1008 ¶¶ 8–10, 15. Importantly, he also explains the qualifications of individuals who typically attended NCTA shows (which are consistent with

¹³ Scheffler does include a trademark notice for Broadbus, Mr. Scheffler’s employer in 2003. *See* Ex. 1006, 10; Ex. 1008 ¶ 3.

our adopted definition of the level of ordinary skill in the art) and the normal practices by which NCTA made technical papers available to members and authors in paper or electronic form. *See id.* ¶¶ 5, 7, 13–14; *supra* Section II.D; *GoPro*, 908 F.3d at 694–96 (concluding that a document made available at a trade show open only to dealers, not the general public, was sufficiently accessible; “Trade shows are not unlike conferences—a trade show is directed to individuals interested in the commercial and developmental aspects of products. If one desires to examine certain new products on the market, attending a trade show involving identical or similar products is a good option.”); *Nobel Biocare Servs. AG v. Instradent USA, Inc.*, 903 F.3d 1365, 1375–80 (Fed. Cir. 2018) (concluding that a trade show catalog was publicly accessible where the petitioner relied on testimony with “specific details” about the show and typical practices as to how such documents were distributed).

Mr. Scheffler’s testimony that Scheffler was publicly accessible at the NCTA show is supported sufficiently by the current record. For example, the Wayback Machine web pages, dated in 2003 prior to the NCTA show, state the following:

Broadbus announced today the company has been selected to present a technical paper on Television on Demand (TOD) at The National Show, the cable industry’s principal trade event to be held June 8–11 in Chicago. . . .

NCTA’s Technical Papers are an extensive collection of published works by the industry’s most distinguished technical authors, as selected through a rigorous peer-review process. The 2003 edition provides cable technologists the opportunity to express new engineering concepts and the science behind them, while preserving their papers in print as a valuable resource for the engineering community. . . .

A Broadbus co-founder and director with more than 20 year[s] of experience in architecting DRAM-based servers, *Scheffler will present “Ingest and Metadata Partitioning: Requirements for Television on Demand (TOD),”* addressing the issues and requirements associated with server ingest of broadcast content and content propagation, as well as the architectural implications for VOD servers. He will introduce a new class of servers to support TOD requirements, and will discuss how TOD content is managed through the creation and distribution of enhanced metadata formats in an environment managed by studios, distributors, and cable operators. *Scheffler will present on Tues., June 10, from 2:45 PM – 4:00 PM.*

...

In addition to demonstrating the B-1 server at NCTA Booth #1902, Broadbus will present its Television-on-Demand server architecture during a *technical session entitled “Ingest and Metadata Partitioning: Requirements for Television on Demand” on Tues., June 10, from 2:45 PM – 4:00 PM.*

Ex. 1032, 3, 12 (emphasis added). The web pages thus refer to both the title of Scheffler and the NCTA show date on which Mr. Scheffler states that he presented his paper, and provide support for Mr. Scheffler’s testimony regarding the NCTA show, its attendees, and the fact that the NCTA collected technical papers in which such individuals would have been interested. *See id.* at 3, 6, 12; Ex. 1006, 1; Ex. 1008 ¶¶ 10, 13, 15.

Mr. Scheffler further testifies that the NCTA would make copies of the Proceedings available prior to the annual show and “Exhibit B” attached to his declaration is “a true and correct copy of the 2003 NCTA Proceedings that included [his] paper.” Ex. 1008 ¶ 13. The final page of “Exhibit B” includes multiple ISBN numbers and the notation “© 2015 National Cable and Telecommunications Association. All Rights Reserved.” *Id.*, Ex. B. Patent Owner views this as “suggesting publication much later than 2003.” Prelim. Resp. 49. Mr. Scheffler’s testimony, however, is not that “Exhibit

B” was published in 2003 (in which case it would have an ISBN number), but rather that the document is a copy of what he testifies was made available by the NCTA in 2003. Ex. 1008 ¶ 13. Patent Owner will have the opportunity to cross-examine Mr. Scheffler and explore the bases for his statements, and our ultimate determination of the weight to be given to his testimony will be based on the complete record at the end of trial. Again, for purposes of institution, Petitioner only needs to demonstrate a reasonable likelihood that Scheffler is a prior art printed publication; Petitioner need not prove public accessibility by a preponderance of the evidence at this stage. *See Hulu*, Paper 29 at 13.

Finally, we note that Petitioner also argues that the 2003 NCTA Technical Papers including Scheffler were “indexed and available from libraries by September 2003,” citing as support a letter from a German library stating that “Technical papers, 52nd annual NCTA convention & international exposition, June 8 – 11, 2003, Chicago IL,” was “incorporated at [its] establishment on September 15th, 2003, under the shelf mark RN 2344(52).” *See* Pet. 29; Ex. 1026. Patent Owner argues that the letter is deficient for a number of reasons. Prelim. Resp. 50. We agree that the letter (1) is not in the form of an affidavit or declaration, and (2) merely states that the listed reference was “incorporated” at the establishment with a “shelf mark,” but provides no detail as to the library’s indexing or cataloguing practices or the author’s qualifications. *See* Ex. 1026; Prelim. Resp. 50. Based on the current record, Mr. Scheffler’s declaration and the supporting Wayback Machine web pages are sufficient for Petitioner to meet the reasonable likelihood standard by themselves. Thus, we need not rely on the letter at this stage of the proceeding.

Based on the totality of the evidence currently in the record, Petitioner has established a reasonable likelihood that Scheffler is a prior art printed publication under 35 U.S.C. §§ 102(a) and (b). The fact that we institute an *inter partes* review on a preliminary record is not dispositive of the ultimate conclusion as to whether Scheffler qualifies as prior art. Our conclusion of whether Petitioner has shown unpatentability by a preponderance of the evidence will ultimately be made after weighing all of the evidence included in a fully developed record.

6. Claim 1

a) Petitioner's Mapping of Baumgartner, Son, Scheffler, and CableLabs

Petitioner relies on Baumgartner as allegedly teaching the majority of the limitations of claim 1. Pet. 34–59. Regarding the preamble of claim 1, Petitioner argues that Baumgartner teaches a method for providing VOD services to “television service subscribers” (i.e., subscribers using user equipment devices 18, 20, and 22 in their homes) via a “television service provider system” (i.e., interactive television system 10) comprising a “video-on-demand content delivery system” with one or more “computers” (i.e., television distribution facility 14 with computer equipment, including server 56). *Id.* at 35–37.

As to step (a) of claim 1, Petitioner contends that Baumgartner teaches the “video-on-demand content delivery system” (i.e., television distribution facility 14) receiving “digital content” from various VOD vendors (i.e., programming sources 12) via, for example, Internet file transfer. *Id.* at 37–38. Claim 1 recites that the digital content is received from a “Web-based content management system.” Petitioner acknowledges that “Baumgartner does not explicitly reference web-based content upload,” but

contends that, “as shown by Son, it was routine to employ a web-based interface for this type of upload.” *Id.* at 35, 39. In particular, Petitioner cites Son’s stream caching server 102 as a “central server” allowing upload by a content provider terminal using applet 154. *Id.* at 39–40. According to Petitioner, Son’s web-based upload “allows for content ‘management’ in that it permits content providers to control what content is uploaded (and thus available to users), and associate metadata, access limits, and other use restrictions with that content.” *Id.* at 39.

The recited “digital content” in claim 1 includes “a first video content, along with . . . first metadata, associated with the first video content and usable in a video-on-demand content menu.” Petitioner argues that Baumgartner’s interactive television application displays a guide based on information received from data source 30—namely, “detailed title descriptions,” “genre or category information,” and certain information provided by a vendor: “[v]endor-specific interface elements” and “definitions” governing the appearance and behavior of the vendor’s categories and subcategories in the guide. *Id.* at 40–41. Petitioner acknowledges that Baumgartner does not expressly state that the disclosed information is “in the form of metadata,” but contends that, as shown by Son, Scheffler, and CableLabs, “it was well known that metadata like title and categorical information can (and should) be supplied by the same entity that provides the content.” *Id.* at 35, 41–43. For example, according to Petitioner, Son teaches metadata “prepending” to a content file itself and uploaded to a central server, and Scheffler and CableLabs teach a content provider embedding metadata in a content file so that it follows the same path as the content and is eventually used to generate the VOD menu displayed to the user. *Id.* at 42–43.

The “first metadata” in claim 1 comprises “first title information,” “first content provider designated hierarchically arranged category information and subcategory information,” and “first time information.” Petitioner argues that Baumgartner teaches using certain information (e.g., content titles, categories of content) to display the guide to a user and controlling the user’s access to content, but does not expressly disclose doing so using metadata. *Id.* at 43–47. Thus, Petitioner again relies on the metadata-related teachings of Son, Scheffler, and CableLabs. *Id.* Similarly, with respect to the final limitation of step (a) reciting that the first video content was “uploaded to the Web-based content management system by a content provider device associated with a first video content provider via the Internet in a digital video format, along with the associated first metadata,” Petitioner points to Son’s disclosure of a content provider uploading content to a central server and the teachings of Son, Scheffler, and CableLabs that metadata should be “appended to the uploaded content itself by the original content provider and used to generate an EPG.” *Id.* at 47–48.

As to step (b) of claim 1, Petitioner argues that Baumgartner teaches storing video content at a “video server” (i.e., server 56) associated with the “video-on-demand content delivery system” (i.e., television distribution facility 14), where server 56 is configured to supply the video content for transmission to a “set top box operatively connected to TV equipment of a television service subscriber” (i.e., user equipment 20, which may be a set-top box connected to a television) upon request. *Id.* at 48–50.

As to step (c) of claim 1, Petitioner contends that Baumgartner teaches providing a set-top box with access to a “video-on-demand content menu” (i.e., the guide displayed by the interactive television application) for navigating through titles by hierarchically-arranged categories and

subcategories, citing the sequence of screens shown in Figures 14–16 and vendor-specific screens in Figures 24, 26, and 27. *Id.* at 50–53. Petitioner further argues that Baumgartner teaches a plurality of different “video display templates” (i.e., VOD interface templates populated with vendor-specific interface elements, as shown in Figure 26) accessible to the set-top box and used by the interactive television application to display the guide. *Id.* at 54–55. With respect to the recitation in step (c) that the menu lists titles “using the same hierarchical structure of category information and subcategory information as was designated by one or more video content providers . . . in the uploaded metadata for the respective video content,” Petitioner again relies on the teachings of Son, Scheffler, and CableLabs that metadata should be prepended to or embedded in the content file itself. *Id.* at 53–54.

As to step (d) of claim 1, Petitioner argues that Baumgartner teaches allowing vendors to engage in “access control” for VOD content, but “does not expressly mention time of availability.” *Id.* at 55–56. Petitioner relies on Scheffler’s teaching of rules-specific metadata (originating at a content provider, just like content metadata) for controlling what times particular video content is available to be selected. *Id.* at 56. According to Petitioner, therefore, modifying Baumgartner’s system to use such metadata based on Scheffler results in the interactive television application determining “which titles are available for selection from the video-on-demand content menu at a respective time based at least in part on respective time information during which the respective video content . . . can be accessed,” as recited in step (d). *Id.* at 55–56.

Finally, as to step (e) of claim 1, Petitioner contends that Baumgartner teaches, in response to a subscriber selecting with a “control unit” (i.e.,

remote control 72) the title of video content from the guide and user equipment 20 transmitting an electronic request for the video content, retrieving the video content from server 56 and transmitting it to user equipment 20 for display. *Id.* at 57–59.

Petitioner provides reasons why a person of ordinary skill in the art would have been motivated to combine the teachings of Son, Scheffler, and CableLabs with Baumgartner in the manner explained above and would have had a reasonable expectation of success in doing so to achieve the claimed method. *Id.* at 69–77. Petitioner’s contentions regarding claim 1 are supported by the testimony of Dr. Russ and are persuasive based on the current record. *See id.* at 34–59, 69–77; Ex. 1002 ¶¶ 133–286, 355–429.

b) Patent Owner’s Arguments

Patent Owner makes four arguments in its Preliminary Response disputing Petitioner’s contentions regarding claim 1. Prelim. Resp. 51–67.

First, Patent Owner argues that the asserted prior art does not teach

receiving, at the one or more computers of the video-on-demand content delivery system of the television service provider system from a Web-based content management system, . . . (i) a first video content, along with (ii) first metadata, associated with the first video content and usable in a video-on-demand content menu,

as recited in step (a), as well as the subsequent “wherein” clause reciting that “the first video content was uploaded to the Web-based content management system by a content provider device associated with a first video content provider via the Internet.” *Id.* at 51–55. Patent Owner argues that, contrary to Petitioner’s assertions, Baumgartner does not teach VOD content provided by programming sources 12 and “does not explain whether or how

vendors might upload video-on-demand content to a ‘content management system,’ whether Web-based or not, or how such content might subsequently be provided to a ‘video-on-demand content delivery system of [a] television service provider system.’” *Id.* at 51–52. Patent Owner further contends that because programming sources 12 (which allegedly provide VOD content) are separate from data source 30 (which allegedly provides program guide information), “Baumgartner discloses that VOD content and metadata are stored separately” and “does not disclose how VOD content and metadata are ingested by the television distribution facility, if at all.” *Id.* at 52–53. Also, Patent Owner asserts that Baumgartner’s vendor-specific interface elements are not “metadata” associated with VOD content. *Id.* at 54.

We are not persuaded by Patent Owner’s arguments based on the current record. Regarding the disclosure of Baumgartner, Petitioner’s contention is that VOD content “originates” at programming sources 12 (which may be VOD vendors). Pet. 37–38. In the first paragraph of its Detailed Description, Baumgartner broadly discloses that

[c]ontent such as television programming and *other media*, such as digital music, *may be provided from programming sources 12 to television distribution facilities such as television distribution facility 14 using communications path 16. Programming sources 12 may be any suitable sources of television and music programming, such as television and music production studios, etc.*

Ex. 1004 ¶ 49 (emphasis added). VOD “content” may be provided by “a particular vendor (e.g., HBO, Showtime, Starz, etc.)” and listed on a VOD listing screen. *Id.* ¶¶ 8–9. Baumgartner further discloses *storing* VOD content in a number of places within interactive television system 10, such as server 36, server 56, or service provider 50, so that it can be delivered to users upon request. *Id.* ¶¶ 129, 159. Thus, to the extent Patent Owner

argues that VOD content does not originate at a vendor programming source (and then is provided to another system for storage) in Baumgartner, we disagree.

Further, Patent Owner’s arguments focus on Baumgartner individually, rather than the combination of references asserted by Petitioner. “A finding of obviousness . . . cannot be overcome ‘by attacking references individually where the rejection is based upon the teachings of a combination of references.’” *Bradium*, 923 F.3d at 1050 (quoting *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986)); *In re Mouttet*, 686 F.3d 1322, 1332–33 (Fed. Cir. 2012) (holding that the test for obviousness is “what the combined teachings of the references would have suggested to those having ordinary skill in the art”). Petitioner acknowledges that Baumgartner does not expressly disclose certain aspects of the limitations challenged by Patent Owner, and thus relies on combinations with the other asserted references.

Baumgartner does not expressly disclose receiving digital content from a “Web-based content management system”;¹⁴ Petitioner relies on a combination with Son. Pet. 35, 39. Based on our reading of the Petition, Petitioner’s position is that a person of ordinary skill in the art would have been motivated to “apply” Son’s teaching of web-based upload from a terminal with an applet to a central server to Baumgartner, such that VOD content would be uploaded from a VOD vendor to a central server using the Web and then provided to television distribution facility 14. *See id.* at 39, 71–73; Ex. 1003 ¶¶ 378, 392–393. That combination is supported

¹⁴ As explained above, we interpret “Web-based content management system” to mean “a system accessible over the Internet, including the Web, for managing content.” *See supra* Section II.E.1.

sufficiently at this stage by the disclosure of the two references and the testimony of Dr. Russ.

Likewise, although Baumgartner discloses using information, definitions, and vendor-specific interface elements (again originating at a VOD vendor) to control the appearance and behavior of its guide, it does not expressly disclose such data being “in the form of metadata”; Petitioner relies on a combination with Scheffler and CableLabs. Pet. 35, 41–42. Petitioner’s position is that a person of ordinary skill in the art would have been motivated, based on express statements in Scheffler and for additional reasons, to modify Baumgartner’s system to “employ ‘metadata’ when uploading ‘vendor-specific interface elements’ to Baumgartner’s system” and “package this type of metadata with content provider uploaded content.” *See id.* at 73–75; Ex. 1003 ¶¶ 396–407. Thus, in combination, the references teach video content being provided “along with” metadata, as recited in claim 1, according to Petitioner. *See* Pet. 42–43, 47–48, 73–75. Patent Owner contends that this combination is “unsupported,” but we do not agree based on the current record. *See* Prelim. Resp. 53–54. Scheffler discloses multiple times metadata created at the original content provider and embedded in the VOD content itself. *See* Ex. 1006, 6–8 (indicating that “content specific metadata” should be “created at the earliest possible point in the production and distribution chain,” “embedded in the actual content file,” and “sent along the same path as the actual content”). Dr. Russ testifies as to how a person of ordinary skill in the art would have understood those disclosures. *See, e.g.,* Ex. 1003 ¶¶ 186–192, 397–398. Again, Petitioner has made a sufficient showing as to the combined teachings of the asserted references based on the preliminary record.

Second, Patent Owner argues that it would not have been obvious to combine Baumgartner with Son to produce a “Web-based content management system,” as recited in claim 1. Prelim. Resp. 55–57. As explained above, Baumgartner teaches a “video-on-demand content delivery system” (i.e., television distribution facility 14) receiving content from various sources, but does not expressly disclose receiving from a “Web-based content management system” that in turn received content from a “content provider device”; for that, Petitioner relies on a combination with Son, asserting that a person of ordinary skill in the art would have been motivated to modify Baumgartner’s system to use a web-based upload process instead. *See* Pet. 35, 39.

Patent Owner contends that Son is “incompatible and not suitable for combination” with Baumgartner because it is a “self-contained” system with content uploaded using the disclosed applet regardless of whether the user is operating a set-top box in a cable television network or a computer on the Internet, whereas Baumgartner, by contrast, only uses a cable television network. Prelim. Resp. 55–56, 62–63. According to Patent Owner, “incorporating Son’s standalone approach [communicating using Internet Protocol (IP) packets] conflicts with cable television’s practices for distributing video-on-demand content at the time.” *Id.* at 56.

We disagree based on the current record. Both references teach video content and other data being communicated between components via Internet Protocol. *See* Ex. 1004 ¶¶ 55 (“Communications path 32 [between data source 30 and television distribution facility 14] may be any suitable communications path such as . . . a path that supports Internet communications”), 57 (“Communications network 34 may be any suitable communications network, such as the Internet”), 70 (“Set-top

box 60 may also have communications circuitry . . . for communications with other equipment. Such communications may involve the Internet or any other suitable communications networks or paths.”), 187, 191; Ex. 1005, col. 2, ll. 57–58, col. 4, ll. 28–49, col. 5, ll. 59–62; Pet. 25–26, 35, 38, 39, 71. Baumgartner further discloses content providers providing video content and vendor-specific interface elements via multiple different communication methods, one of which is “internet file transfer.” See Ex. 1004 ¶¶ 49–51 (“Communications path 16 [through which content is provided from programming sources 12 to television distribution facility 14] may be a satellite path, a fiber-optic path, a cable path, or any other suitable wired or wireless communications paths or a combination of such paths.”), 187 (“The remote server may receive [vendor-specific interface elements] from the vendors by a variety of methods, including by network, fax, email, internet file transfer, regular mail, and the like.”), 191; Ex. 1003 ¶¶ 372–374. As such, we are not persuaded that they disclose incompatible functionality such that Son’s web-based upload process would be incompatible with Baumgartner’s system.

Third, Patent Owner argues that the asserted prior art does not teach metadata comprising

first content provider designated hierarchically arranged category information and subcategory information to specify a location of the first title information for the video content in a predetermined video-on-demand application . . . using a same hierarchical structure of categories and subcategories as is to be used for placement of the first title information in the predetermined video-on-demand application,

as recited in step (a) of claim 1, as well as the limitation that “the video-on-demand content menu lists the titles using the same hierarchical structure of category information and subcategory information as was

designated by one or more video content providers,” as recited in step (c). Prelim. Resp. 57–62. Patent Owner contends that Baumgartner does not disclose “using metadata to specify a location for a title in a video-on-demand application” and nor does Son because it only makes “an off-hand reference to metadata that identifies content (e.g., title)” and “never explains how or why such metadata might be used.” *Id.* at 57–60. We are not persuaded by these arguments based on the current record, as they focus on Baumgartner and Son individually, when Petitioner’s arguments regarding the limitations rely on a combination with Scheffler and CableLabs. *See* Pet. 44–46, 53–54; *Bradium*, 923 F.3d at 1050; *Mouffet*, 686 F.3d at 1332–33.

Similarly, Patent Owner contends that “Son and Scheffler take contradictory approaches to handling metadata and therefore are not suitable for combination to fill in the gaps in Baumgartner,” where Son “embeds content metadata into the MPEG file before it is uploaded” and “is not concerned with navigation menus in the same way as Scheffler.” Prelim. Resp. 60–61. Petitioner, however, only cites Son to the extent it teaches “prepend[ing]” metadata with a VOD content file (similar to Scheffler’s “embedd[ing]” of metadata)—not as teaching metadata implementing a hierarchical structure of categories and subcategories. *See* Pet. 42. For that concept, Petitioner relies on Scheffler and CableLabs, citing in particular “category” metadata in the standard described in CableLabs. *See id.* at 44–46, 53–54; Ex. 1003 ¶¶ 400–405, 409. Patent Owner’s arguments do not respond to the specific combination asserted by Petitioner.

Patent Owner also argues that CableLabs “simply details the format of metadata and not any method of handling that metadata” or “uploading metadata.” Prelim. Resp. 61. Petitioner, however, relies on the other

references for such disclosures; for the disputed limitations, Petitioner relies on CableLabs only as teaching metadata implementing a hierarchical structure of categories and subcategories. Pet. 44–46, 53–54. And Patent Owner argues that “[e]ven if Baumgartner’s television distribution facility received video-on-demand content in the CableLabs format, it would not change the fact that Baumgartner teaches that the vendor separately provides listings of titles for menus.” Prelim. Resp. 61. As explained above, Scheffler, not Baumgartner, is relied upon for its express statements that metadata should be embedded in a VOD content file so that the two are uploaded and transmitted through the system together. Pet. 42–43, 47–48, 73–75. Patent Owner’s arguments do not account for the specific combination asserted by Petitioner.

Fourth, Patent Owner argues that Petitioner provides insufficient reasoning for combining Baumgartner, Son, Scheffler, and CableLabs. Prelim. Resp. 62–67. Patent Owner points to isolated statements in the Petition (1) referring to another reference (Ex. 1018) in support of the general contention that web-based uploading was well-known at the time of the ’791 patent, (2) describing how Baumgartner’s system “could” be modified, and (3) pointing out that all of the references are in the same general field of VOD systems, but ignores the majority of Petitioner’s analysis. *See* Prelim. Resp. 63–65. Patent Owner also contends that Petitioner’s explanation is conclusory, particularly with respect to combining all four references. *Id.* at 66–67.

We disagree based on the current record. Petitioner explains in detail, with supporting testimony from Dr. Russ, not just how Baumgartner could be modified based on Son, Scheffler, and CableLabs, but also *why* a person of ordinary skill in the art would have been motivated to do so. *See* Pet. 35,

39–40, 42–48, 56, 69–77; Ex. 1003 ¶¶ 355–429. For example, Petitioner points to numerous “benefits” of web-based uploading that would be achieved by modifying Baumgartner based on the teachings of Son, tying those benefits directly to the disclosure of Baumgartner. *See* Pet. 72–73 (“Baumgartner already explains that its system is meant to allow ‘multiple vendors’ to upload content and menu elements to its system. . . . Use of a web-based upload system, instead of some other proprietary or more complicated system, would not only facilitate this functionality, but it would also allow Baumgartner to accept and make available content from a broader collection of providers.” (citing Ex. 1004 ¶ 191; Ex. 1003 ¶¶ 379–384)). We find Petitioner’s analysis sufficient at this early stage.

c) Conclusion

On this record, we are persuaded that Petitioner has shown a reasonable likelihood of prevailing on its assertion that claim 1 is unpatentable over Baumgartner, Son, Scheffler, and CableLabs.

7. Claims 2, 5–12, and 14–18

We have reviewed Petitioner’s contentions regarding claims 2, 5–12, and 14–18, which depend directly from claim 1, and are persuaded that Petitioner has made a sufficient showing at this stage for those claims as well. *See* Pet. 59–69. Petitioner explains how each limitation of the dependent claims is taught or rendered obvious by the disclosures of Baumgartner, Son, Scheffler, and CableLabs. *Id.* For example, claim 2 recites that “the control unit is a remote control unit.” Petitioner relies on Baumgartner’s teaching of a user making a selection using “remote control 72 or any other suitable input device.” *Id.* at 59 (quoting Ex. 1004 ¶ 129).

Petitioner's contentions are supported by the testimony of Dr. Russ and are persuasive based on the current record. *See id.* at 59–69; Ex. 1003

¶¶ 287–354. Patent Owner does not argue the challenged dependent claims separately, only disputing Petitioner's arguments regarding independent claim 1. *See* Prelim. Resp. 47–67. We disagree based on the current record for the reasons explained above. *See supra* Section II.F.6.

On this record, we are persuaded that Petitioner has shown a reasonable likelihood of prevailing on its assertion that claims 2, 5–12, and 14–18 are unpatentable over Baumgartner, Son, Scheffler, and CableLabs.

G. Obviousness Ground Based on Baumgartner, Son, Scheffler, CableLabs, and Baumgartner II

Claim 3 recites the method of claim 1, further comprising “tracking and collecting, at the television service provider system, data indicative of selections for viewing of video-on-demand video content by respective television service subscribers on the television service provider system.” Petitioner relies on Baumgartner II as teaching the additional limitation of claim 3. Pet. 77–79. Baumgartner II discloses using “a user's personal profile to determine possible programs and categories of interest” and storing profiles on “network equipment, such as a remote server.” Ex. 1025 ¶¶ 159, 163. The disclosed “interactive television program guide application may keep track of the television programs and other media content that the user watches” to generate the user's profile. *Id.* ¶ 161.

Patent Owner makes various arguments regarding parent claim 1, which we address above. *See supra* Section II.F.6. With respect to claim 3, Patent Owner argues that “[t]he fact that [Petitioner] had to hunt for disclosure across five prior art references . . . highlights [its] improper

approach of using the claims as a starting point and then identifying references that disclose the elements,” which is “facially improper.” Prelim. Resp. 67. We disagree based on the current record. Although Petitioner relies on disclosures only present in Baumgartner for certain limitations of claim 1, the basic components of interactive television system 10 are the same in Baumgartner and Baumgartner II. *See* Pet. 34, 78; Ex. 1004 ¶¶ 49–65, Fig. 1; Ex. 1025 ¶¶ 44–60, Fig. 1. Thus, we are not persuaded that adding the disclosed tracking to the modified Baumgartner system would be an unduly complex combination. Petitioner also provides a specific reason for adding the tracking feature of Baumgartner, namely that doing so “would have allowed Baumgartner’s system to provide users with more tailored, relevant lists of available content,” thereby “improv[ing] the functionality of and user experience” of Baumgartner’s system. Pet. 78–79. Petitioner’s contentions are supported by the testimony of Dr. Russ and are persuasive based on the current record. *See id.* at 77–79; Ex. 1003 ¶¶ 430–448. As with all of Petitioner’s obviousness arguments, our ultimate determination of whether Petitioner has proven that a person of ordinary skill in the art would have had reason to combine the references’ teachings in the manner asserted will be based on the complete record at the end of trial.

On this record, we are persuaded that Petitioner has shown a reasonable likelihood of prevailing on its assertion that claim 3 is unpatentable over Baumgartner, Son, Scheffler, CableLabs, and Baumgartner II.

III. CONCLUSION

Based on the arguments presented in the Petition, we conclude that Petitioner has demonstrated a reasonable likelihood of prevailing with

respect to at least one claim of the '791 patent challenged in the Petition. Accordingly, we institute a trial on all claims and all grounds asserted in the Petition. The Board has not made a final determination under 35 U.S.C. § 318(a) with respect to the patentability of the challenged claims.

IV. 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 1–3, 5–12, and 14–18 of the '791 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 '791 patent shall commence on the entry date of this Decision, and notice is hereby given of the institution of a trial.

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Patent 9,998,791 B2

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