

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AMAZON.COM, INC.,
AMAZON.COM SERVICES LLC,
AMAZON WEB SERVICES, INC., and
TWITCH INTERACTIVE, INC.,
Petitioner,

v.

NL GIKEN INC.,
Patent Owner.

IPR2025-00050
Patent 10,880,592 B2

Before MICHELLE N. WORMMEESTER, KEVIN C. TROCK, and
IFTIKHAR AHMED, *Administrative Patent Judges*.

AHMED, *Administrative Patent Judge*.

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

I. INTRODUCTION

Amazon.com Inc., Amazon.com Services LLC, Amazon Web Services, Inc., and Twitch Interactive, Inc. (collectively, “Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1–13 of U.S. Patent No. 10,880,592 B2 (Ex. 1001, “the ’592 patent”). NL Giken Inc. (“Patent Owner”) filed a Preliminary Response (Paper 9, “Prelim. Resp.”). After it filed its Preliminary Response, Patent Owner requested and we granted authorization for the parties to file supplemental briefs addressing the recission of the Office’s June 21, 2022, memorandum entitled “Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation.” *See* Ex. 2002; Paper 10 (“Supp. Prelim. Resp.”); Paper 11 (“Pet. Supp. Resp.”).

We have authority under 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a). Pursuant to 35 U.S.C. § 314(a), an *inter partes* review may not be instituted “unless . . . 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 determine that Petitioner has demonstrated a reasonable likelihood of prevailing in demonstrating the unpatentability of claims 1–3 and 5. Accordingly, we institute an *inter partes* review of those claims. We do not address claims 4 and 6–13 because Patent Owner disclaimed those claims. *See* Exs. 2001, 2008; Prelim. Resp. 30; Supp. Prelim. Resp. 3.

II. BACKGROUND

A. Real Parties in Interest

Petitioner identifies Amazon.com, Inc., Amazon.com Services, Inc., Amazon Web Services, Inc., and Twitch Interactive, Inc. as real parties in

interest. Pet. 76; Paper 7, 1. Patent Owner identifies NL Giken Inc. as real party in interest. Paper 6, 1 (Patent Owner's Mandatory Notice).

B. Related Proceedings

The parties identify the following related case: *NL Giken Inc. v. Amazon.com, Inc.*, No. 1:24-cv-00028 (D. Del.) ("Related Litigation"). Pet. 76; Paper 6, 2.

C. The '592 Patent

The '592 patent is directed to a television set capable of receiving both a broadcast program from television station and a corresponding digital file of the same broadcast program from a server through the internet. Ex. 1001, code (57). The '592 patent describes a television including a tuner for receiving a digital broadcast television program and a television set computer for receiving a digital moving image program content provided by a server through the internet. *Id.* at 4:67–5:5.

Figure 1, reproduced below, illustrates the television system.
Ex. 1001, 4:38–40, 4:62–64.

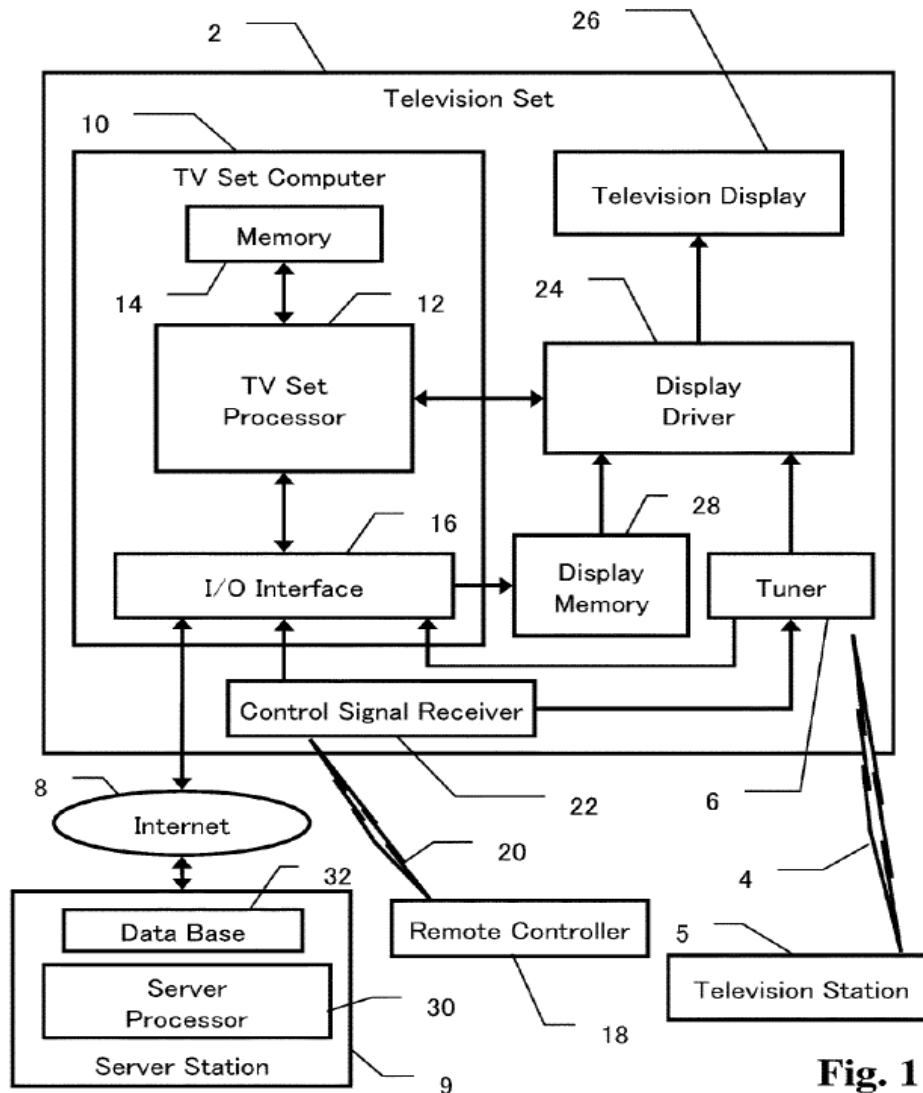


Fig. 1

Figure 1 depicts television set 2 including tuner 6, television set computer 10, control signal receiver 22, display driver 24, television display 26, and display memory 28. *Id.* at 4:62–5:7, 5:25–30, 5:40–56. Television set 10 includes television set processor 12, memory 14, and I/O interface 16. *Id.* at 5:5–7. Television set 2 communicates with server station 9 via an internet connection 8 and television station 5 via digital airwave 4. *Id.* at 4:67–5:5.

The '592 patent explains that the disclosed television “can not only select between a digital moving image content on air and a digital moving image content downloaded through internet 8, but also can combine both in advantageous manners.” Ex. 1001, 6:23–26. For example, “if a user meets a midstream of some broadcast digital moving image content provided in accordance with a scheduled program by chance of selecting a channel and gets interested in the content, the user can enjoy the content at any desirable position, including the beginning, of the content.” *Id.* at 11:36–41.

D. Illustrative Claim

Petitioner challenges claims 1–3 and 5 of the '592 patent, where claim 1 is an independent claim and is reproduced below with Petitioner's labeling of elements.

[1.pre] A receiving apparatus configured to receive digital moving image contents from outside providers of the digital moving image contents, the outside providers including a first provider providing a digital moving image content in accordance with a program schedule table predetermined by the provider and a second provider providing the digital moving image content independently from¹ the program schedule table, the receiving apparatus comprising:

[1.a] a remote controller that manually selects one of the digital moving image contents provided from the first provider, the selected digital moving image content being an integral program continuing from an opening part to an ending part by way of a midstream part;

[1.b] a tuner that receives the selected digital moving image content at the midstream part of the integral program which is

¹ Petitioner notes that “form” appears to be a typographical error in place of the word “from.” Pet. 9 (citing Ex. 1002. n.1). We agree and address the preamble accordingly.

provided by the first provider at the time of selection by the remote controller;

[1.c] an I/O interface that receives from the second provider the digital moving image content including entire data of the digital moving image content from the opening part to the ending part of the integral program same as the integral program received from the first provider, the I/O interface locating the integral program in accordance with information from the tuner at the time of selection by the remote controller;

[1.d] a television display that shows the digital moving image contents from the first provider and the second provider; and

[1.e] a memory in a TV set computer that stores the entire data of the digital moving image content received by the I/O interface.

Ex. 1001, 17:24–54.

E. Asserted Challenges to Patentability

Petitioner challenges claims 1–3 and 5 of the '592 patent as follows.

Claims Challenged	35 U.S.C. §²	References/Basis
1–3, 5	103	Walker ³
1–3, 5	103	Chang ⁴
1–3, 5	103	Walker, Chang

Pet. 1, 7–71. In support of its challenge, Petitioner relies on the Declaration of Dr. Chandrajit Bajaj. Ex. 1002.

² The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284 (2011), amended 35 U.S.C. § 103 effective March 16, 2013. Because the application from which the '592 patent issued claims priority before this date, the pre-AIA version of § 103 applies.

³ Walker, U.S. Publ’n No. 2005/0160465 A1, published July 21, 2005 (“Walker,” Ex. 1005).

⁴ Chang, U.S. Publ’n No. 2002/0194619 A1, published December 19, 2002 (“Chang,” Ex. 1004).

III. DISCRETIONARY DENIAL IN VIEW OF PARALLEL LITIGATION

Institution of an *inter partes* review is discretionary. *See* 35 U.S.C. § 314(a) (authorizing institution of an *inter partes* review under particular circumstances, but not requiring institution under any circumstances); *Cuozzo Speed Techs., LLC v. Lee*, 579 U.S. 261, 273 (2016) (“[T]he agency’s decision to deny a petition is a matter committed to the Patent Office’s discretion.”); *SAS Inst. Inc. v. Iancu*, 584 U.S. 357, 365–66 (2018). Patent Owner did not address discretionary denial on any basis in its Preliminary Response. *See* Prelim. Resp.; Ex. 2002. In its supplemental brief, Patent Owner contends that we should exercise our discretion to deny the Petition in view of the Related Litigation. Supp. Prelim. Resp. 1–5.

When determining whether to exercise discretion to deny institution in view of a parallel proceeding, we consider the following factors:

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

Apple Inc. v. Fintiv, Inc., IPR2020-00019, Paper 11 at 5–6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”). “These factors relate to whether efficiency, fairness, and the merits support the exercise of authority to deny

institution in view of an earlier trial date in the parallel proceeding.” *Id.* 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. We consider each of these factors below.

For the reasons discussed below, we conclude that *Fintiv* factors 1 and 3 are neutral, and factors 2 and 4–6 weigh against discretionary denial.

A. Likelihood of a Stay (Factor 1)

Fintiv factor 1 recognizes that a stay of litigation pending resolution of the PTAB trial allays concerns about inefficiency and duplication of efforts, which strongly weighs against exercising the authority to deny institution. *Fintiv*, Paper 11 at 6.

Both Petitioner and Patent Owner agree that this factor is neutral because a motion to stay has been filed but is still pending in the Related Litigation. *See* Pet. 72; Supp. Prelim. Resp. 2; Pet. Supp. Resp. 2.

Absent specific evidence, the Board, typically, “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 . . . based on a variety of circumstances and facts beyond our control and to which the Board is not privy.” *Sand Revolution II LLC v. Cont’l Intermodal Grp.*, IPR2019-01393, Paper 24, 7 (PTAB June 16, 2020) (informative). We decline to speculate on how the court may rule on the pending motion to stay. Accordingly, this factor is neutral.

B. Proximity of Trial Date to Projected Deadline (Factor 2)

Fintiv factor 2 looks to the “proximity of the court’s trial date to the Board’s projected statutory deadline.” *Fintiv*, Paper 11 at 9. “If the court’s trial date is at or around the same time as the projected statutory deadline . . .

the decision whether to institute will likely implicate other factors.” *Id.* Conversely, “[i]f the court’s trial date is earlier than the projected statutory deadline,” this has generally weighed “in favor of exercising authority to deny institution.” *Id.*

Jury trial in the Related Litigation is currently scheduled to begin on June 22, 2026. Ex. 1008, 16. The statutory deadline for issuing a Final Written Decision predates the trial by approximately one month. Patent Owner argues that Petitioner was not diligent in filing the Petition, and this factor favors discretionary denial. Supp. Prelim. Resp. 2.

Petitioner argues that Factor 2 favors institution because that Final Written Decision date precedes the scheduled trial date and also because based on the median time to trial for Judge Noreika, the judge presiding over the Related Litigation, the anticipated trial date would be in December 2026. Pet. Supp. Resp. 2. Petitioner also points out that even based on the median time to trial in the District of Delaware, the trial in the Related Litigation would occur in October 2026. *Id.*; Pet. 72.

We agree with Petitioner that based on median time-to-trial statistics for the District of Delaware and for Judge Noreika, the Final Written Decision in this proceeding would issue a few months before the anticipated trial date and a month before the currently scheduled trial date. Exs. 1007, 1012. This factor therefore weighs against exercising our discretion to deny institution.⁵

⁵ We address Patent Owner’s diligence argument as part of our analysis on Factor 3 below.

C. Investment in the Parallel Proceeding (Factor 3)

Fintiv factor 3 considers the “investment in the parallel proceeding by the court and parties,” including “the amount and type of work already completed in the parallel litigation by the court and the parties at the time of the institution decision.” *Fintiv*, Paper 11 at 9. For example, if, at the time of institution, the court in the parallel proceeding has issued “substantive orders related to the patent at issue in the petition” or “claim construction orders,” this favors discretionary denial. *Id.* at 9–10.

Petitioner asserts that the district court has not made a single substantive ruling regarding the ’592 patent and much work remains to be done in the district. Supp. Pet. Resp. 3. Petitioner specifically notes that a claim construction hearing is scheduled in September 2025, and expert discovery closes in December 2025. *Id.*

Patent Owner points out that as of the issuance of this Decision, “the parties will have nearly completed fact discovery (which closes on June 2); completed and served all final infringement, final noninfringement, final invalidity, and final validity contentions; produced and reviewed more than 50,000 pages of documentary evidence; produced source code (Petitioner[]); completed more than 30 days worth of man-hours reviewing the source code (Patent Owner); and conducted numerous witness depositions on behalf of both parties, including deposition of a foreign-based witnesses who will have traveled to the [United States] for days of proceedings.” Supp. Prelim. Resp. 2–3.

The parties have exchanged contentions and are close to completing fact discovery. While the parties appear to have invested significant effort in the Related Litigation, the bulk of the investment from the court and the

parties appears to lie ahead. The district court has not issued any substantive ruling regarding the '592 patent. A claim construction hearing is not scheduled until September 16, 2025, and, in this proceeding, neither party identifies claim terms that it contends merit express claim construction. This counsels against exercising our discretion to deny institution.

Patent Owner points to Petitioner's lack of diligence given that it took eleven months for Petitioner to file its Petition. Supp. Prelim. Resp. 2. Petitioner argues that it sought review in a timely manner, roughly at the same time as initial invalidity and infringement contentions were due in the Related Litigation. Pet. 73 (citing Ex. 1008). Petitioner, however, does not explain how the contentions impacted the timing of the Petition, which challenges all of claims of the '592 patent. We determine that Petitioner's lack of diligence in filing its Petition weighs in favor of exercising our discretion.

On balance, we determine that this factor is neutral.

D. Overlap of Issues (Factor 4)

Fintiv factor 4 considers whether “the petition includes the same or substantially the same claims, grounds, arguments, and evidence as presented in the parallel proceeding.” *Fintiv*, Paper 11 at 12. If the issues in the petition overlap substantially with those raised in the parallel proceeding, “this fact has favored denial.” *Id.* “Conversely, if the petition includes materially different grounds, arguments, and/or evidence . . . this fact has tended to weigh against exercising discretion to deny institution.” *Id.* at 12–13.

Here, Patent Owner argues that the only claims asserted in the Related Litigation are those that remain challenged in this proceeding (i.e., claims

1–3 and 5). Supp. Prelim. Resp. 3. Patent Owner further contends that Petitioner expressly incorporates the grounds of this proceeding in its district court invalidity contentions. *Id.* Patent Owner also contends that Petitioner has taken inconsistent positions in this proceeding because, in district court, Petitioner argues that many limitations of the challenged claims here are indefinite. *Id.* at 4.

In response, Petitioner stipulates that if we institute this proceeding, “then Petitioner will not rely on Walker or Chang in the district court.” Pet. Prelim. Resp. 4. Petitioner further asserts that the indefiniteness contentions pointed to by Patent Owner have now been withdrawn. *Id.* (citing Ex. 1014, 1–3; Ex. 1013, 45–47).

Petitioner’s stipulation is similar to that in *Sand Revolution II, LLC v. Continental Intermodal Group-Trucking LLC*, IPR2019-01393, Paper 24 at 12 (PTAB June 16, 2020) (informative). And it appears that Petitioner no longer takes inconsistent positions between this proceeding and the Related Litigation. *See* Pet. 3–6; Ex. 1013, 45–47. Given Petitioner’s stipulation, this factor weighs against exercising discretion to deny institution.

E. Identity of Parties (Factor 5)

The parties in the Related Litigation are the same. Supp. Prelim. Resp. 4. To the extent that the deadline for a Final Written Decision in this proceeding may precede trial in the district court, this factor weighs against exercising our discretion to deny institution. *See Huawei Tech. Co. v. WSOU Inv., LLC*, IPR2021-00225, Paper 11 at 14 (PTAB June 14, 2021) (finding that “this factor favors denial if trial precedes the Board’s Final Written Decision and favors institution if the opposite is true”) (internal quotation marks omitted); *Google LLC v. Parus Holdings, Inc.*, IPR2020-

00846, Paper 9 at 21 (PTAB Oct. 21, 2020) (“Here, . . . 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.”).

As discussed *supra* § III.B, our Final Written Decision is likely to precede trial in the district court. Accordingly, this factor weighs against exercising our discretion to deny institution.

F. Other Circumstances Including the Merits (Factor 6)

Fintiv factor 6 looks to whether other circumstances exist that impact the Board’s exercise of discretion, including the merits. *Fintiv*, Paper 11 at 14–15. One factor we may consider is the strength of Petitioner’s showing. *Id.* at 14–15. If the merits “seem particularly strong on the preliminary record, this fact has favored institution,” whereas “if the merits of the grounds raised in the petition are a closer call, then that fact has favored denying institution when other factors favoring denial are present.” *Id.*

Patent Owner argues that the Petition does not present anticipatory prior art under § 102 and relies solely on obviousness combinations under § 103. Supp. Prelim. Resp. 5. Patent Owner further argues that “the petition provides *no 325(d) analysis at all* for the agency to assess if these combinations of features are rework or not.” *Id.* According to Patent Owner, the “failure is separately fatal but simultaneously demonstrates the significant weight to be accorded to this *Fintiv* factor in favor or the Patent Owner.” *Id.*

Petitioner responds that “Petitioner has no burden in its petition to prove a negative—the absence of a § 325(d) issue.” Pet. Prelim. Resp. 5. Petitioner also argues that Patent Owner’s disclaimer of claims 4 and 6–13

implicitly concedes their unpatentability and casts doubt on the patentability of the remaining claims. *Id.* (citing Exs. 2001, 2008).

We agree with Petitioner that our rules do not require petitioners to present a § 325(d) analysis in the petition. *See Masimo Corp. v. Apple Inc.*, IPR2023-00634, Paper 14 at 12–13 (P.T.A.B Sept. 25, 2023) (explaining that our rules do not require “a petitioner to meet any burden on § 325(d) issues in the petition and prior to the filing of a patent owner’s preliminary response”). We discuss Petitioner’s invalidity challenge in detail *infra* Section IV. For the reasons discussed *infra* Section IV.D, we preliminarily find that Petitioner’s obviousness ground based on Walker presents a strong invalidity challenge. Accordingly, we find that factor 6 weighs in favor of institution.

G. Balancing the Factors

When considering the *Fintiv* factors, we 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. For the reasons discussed above, *Fintiv* factors 1 and 3 are neutral, and *Fintiv* factors 2 and 4–6 weigh against discretionary denial. Weighing these various factors, and in particular the strength of Petitioner’s showing based on Walker, we determine that the evidence of record weighs against discretionary denial. Accordingly, we decline to exercise our discretion under 35 U.S.C. § 314(a) to deny institution of an *inter partes* review.

IV. PATENTABILITY ANALYSIS

A. Principles of Law

“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)). This burden of persuasion never shifts to the patent owner. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

A claim is unpatentable under § 103(a) “if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103(a); *see KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) when in evidence, objective indicia of non-obviousness (i.e., secondary considerations). *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).⁶ We consider Petitioner’s asserted challenges with the above-noted principles in mind.

⁶ Neither party presents evidence of secondary considerations at this stage.

B. Claim Construction

Only those claim terms that are in controversy need to be construed, and only to the extent necessary to resolve the controversy. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017). Petitioner contends that “[b]ecause the asserted prior art discloses embodiments within the indisputable scope of the claims, the Board need not construe the outer bounds of the claims.” Pet. 3. Petitioner lists several terms and proffers its position on the plain and ordinary meaning of those terms. *Id.* at 4–6. Patent Owner does not challenge Petitioner’s claim construction positions. Prelim. Resp. 5. For purposes of this Decision, we determine that no term requires express construction.

C. Level of Ordinary Skill in the Art

Petitioner contends that a person of ordinary skill in the art would have had “bachelor’s degree in electrical or computer engineering or a comparable field of study, plus approximately two to three years of professional experience with television and digital display systems, distributed multimedia communications, and networked computer systems, or other relevant industry experience.” Pet. 3 (citing Ex. 1002 ¶ 46). Patent Owner does not challenge Petitioner’s proffered definition as to the level of ordinary skill in the art. Prelim. Resp. 4.

For purposes of this Decision, we adopt Petitioner’s assessment, which is consistent with the level of skill reflected in the Specification and asserted prior art.

D. Ground 1: Alleged Obviousness over Walker

Petitioner asserts that claims 1–3 and 5 of the ’592 patent would have been obvious over Walker. Pet. 7–35. For the reasons explained below, we

determine that Petitioner has demonstrated a reasonable likelihood of prevailing in showing that claims 1–3 and 5 of the '592 patent would have been obvious over Walker.

1. Overview of Walker

Walker describes an interactive television system that allows a user to perform playback control functions while watching a broadcast television program. Ex. 1005, Abstract. Walker's interactive television system provides a user on-demand playback control functions including pause, rewind, and fast-forward when watching a broadcast program. *Id.* ¶¶ 5, 9.

Walker discloses that during normal television viewing, a broadcast program is provided to and displayed on an interactive television system and a streaming version of the broadcast program is provided to a television distribution facility in advance of the broadcast. Ex. 1005 ¶ 10. Walker explains that if a user requests a playback control function, the interactive television system may switch from displaying the broadcast television program to the streaming version of the program. *Id.* When switching, the system may switch to displaying the streaming version of the program at the same point in time in the program that the user was viewing in the broadcast program. *Id.*

Figure 27, reproduced below, depicts a flow chart of steps to allow the user to perform playback control functions by switching from providing broadcast to streaming programming content. Ex. 1005 ¶ 44.

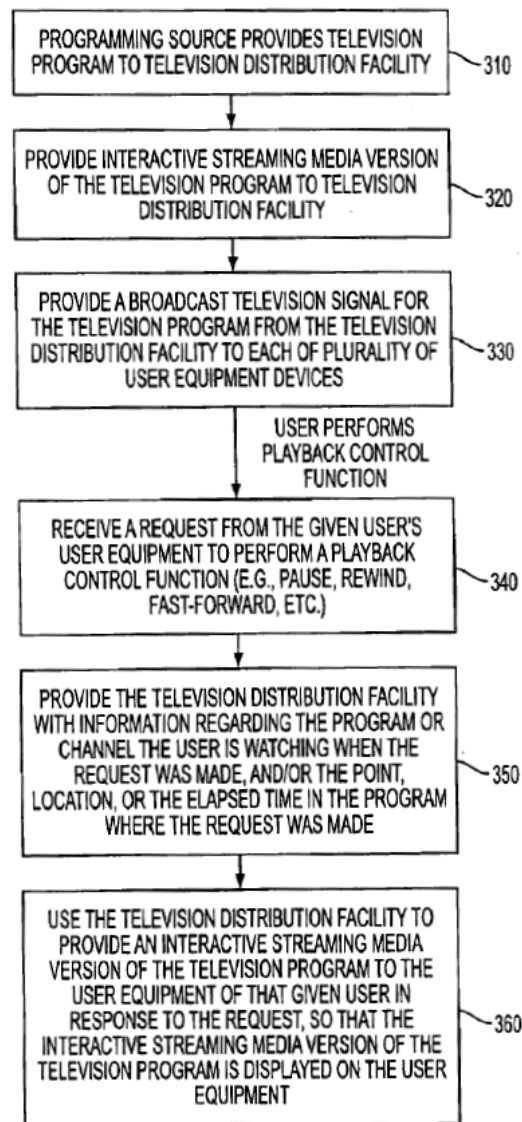


FIG. 27

Figure 27 depicts steps beginning with step 310 where a programming source or content provider provides a television program to a television distribution facility. *Id.* ¶ 183. In step 320, the television distribution facility is provided with an interactive streaming version of the television program. *Id.* ¶ 184. In step 330, the interactive television system receives and displays the broadcast television program. *Id.* ¶ 185. In step 340, the user requests to perform a playback function. *Id.* ¶ 186. In step 350, the

interactive television set provides the television distribution facility with information regarding the program or channel the user is watching when the request was made, and the point or the elapsed time in the program.

Id. ¶ 185. In step 360, the user interactive television set receives a streaming media version of the television program and “may replace the broadcast version and display the streaming media version,” which “provide[s] the user with playback controls (e.g., play, pause, resume, fast-forward, rewind, jump, etc.).” *Id.* ¶ 186.

Figure 1, reproduced below, illustrates Walker’s interactive television system. Ex. 1005 ¶ 17.

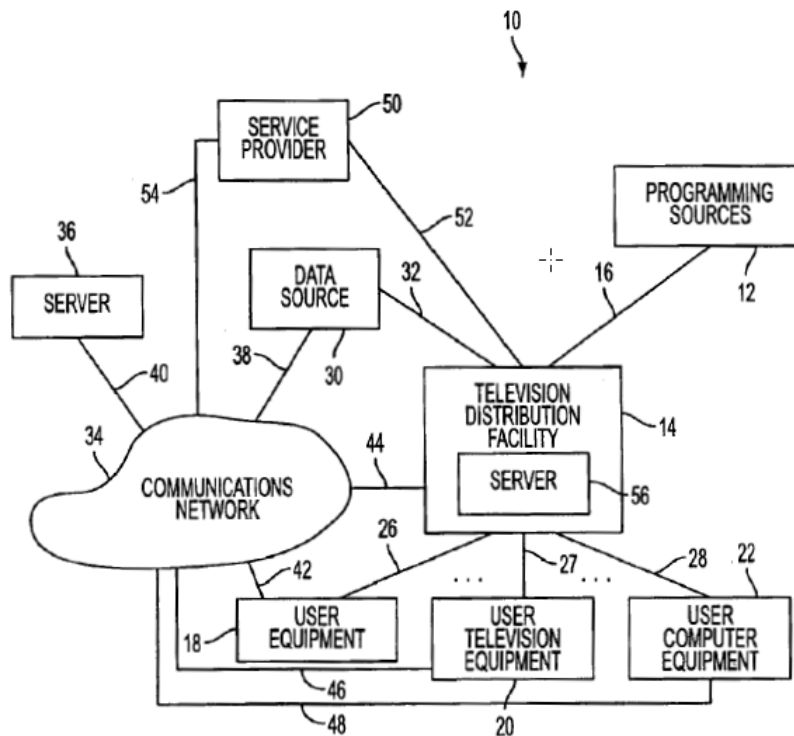


FIG. 1

Figure 1 depicts interactive television system 10 including programming sources 12, television distribution facility 14, user equipment 18, 20, and 22, data source 30, server 36, and service provider 50. *Id.* ¶¶ 45–50, 53.

2. Analysis of Independent Claim 1

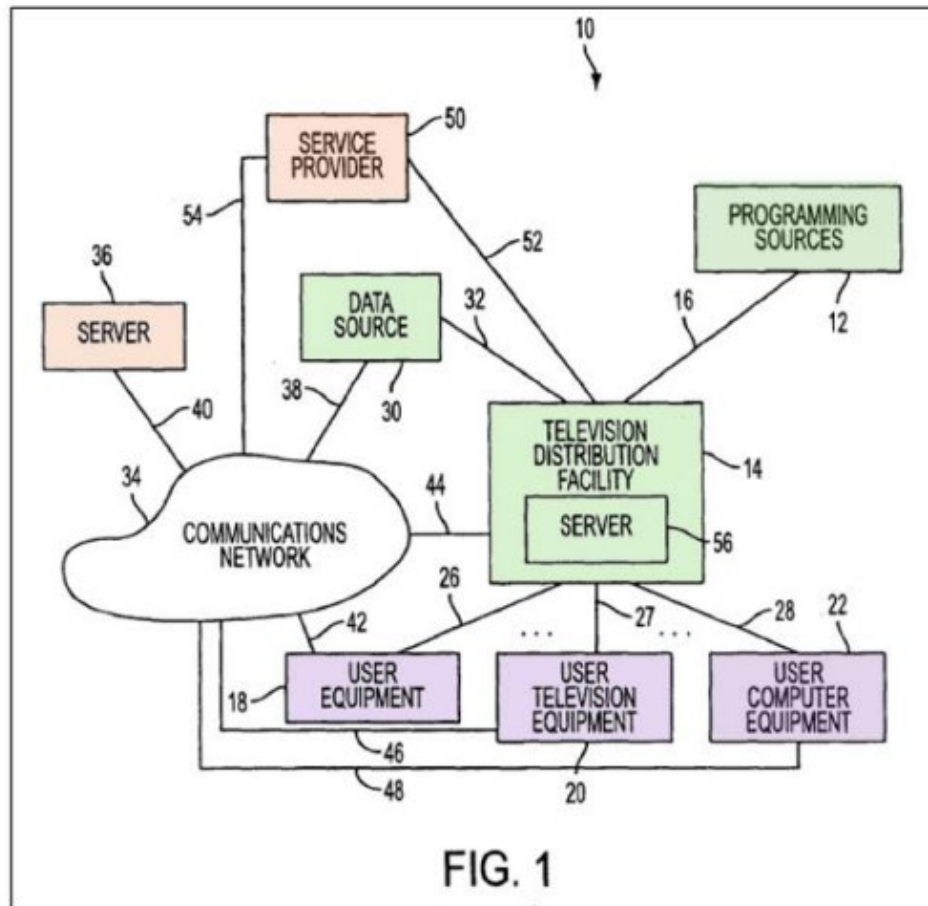
Claim 1 is directed to a “receiving apparatus configured to receive digital moving image contents from outside providers.” Ex. 1001, 17:24–31. In addition to the preamble, which Petitioner designates as element 1.pre, claim 1 recites various limitations, which Petitioner designates as limitations 1.a through 1.g. We address each of these in turn.

i. Preamble 1.pre

The preamble of claim 1 recites

A receiving apparatus configured to receive digital moving image contents from outside providers of the digital moving image contents, the outside providers including a first provider providing a digital moving image content in accordance with a program schedule table predetermined by the provider and a second provider providing the digital moving image content independently from the program schedule table.

Ex. 1001, 17:24–31. Petitioner’s annotated version of Walker’s Figure 1 is reproduced below.



Walker's Figure 1, as annotated by Petitioner, illustrates an interactive television system. *See* Ex. 1005 ¶ 17. Petitioner annotates Figure 1 to identify the claimed receiving apparatus in purple, the first provider in green, and the second provider in orange, according to Petitioner's contentions. Pet. 10. Petitioner identifies Walker's user equipment 18, user television equipment 20, and user computer equipment 22 as the claimed receiving apparatus. *Id.* at 9 (citing Ex. 1005 ¶¶ 45–49, 55–58, Figs. 1–6).

Petitioner contends that Walker discloses the user equipment receiving digital moving image contents from a first provider in the form of programming sources 12, distribution facility 14, and data source 30. *Id.* Petitioner contends that these first providers provide digital moving image

contents in accordance with a program schedule table, e.g., a program guide. *Id.* at 11–12 (citing Ex. 1005 ¶¶ 50–56, 97–98, 161, Figs. 1, 8). Petitioner further contends that the program guide is predetermined by the first provider because data source 30, which is part of the first provider, provides information to the program guide. *Id.* at 12 (citing Ex. 1005 ¶¶ 50–56, Fig. 1).

Petitioner further contends that Walker discloses a second provider in the form of remote server 36 and service provider 50 that provide digital moving image content independently from the program table. *Id.* at 14 (citing Ex. 1005 ¶¶ 58, 155–159, 184). Petitioner contends that Walker’s second provider provides a streamed version of the digital moving image content in response to a user pausing and then resuming playback. *Id.* at 14–15 (citing Ex. 1005 ¶¶ 10–11, 14, 155–156, 160, 164–166, 169, 171, 174, 186, Figs. 24–25, 27).

Patent Owner does not specifically respond to these arguments, and neither party takes a position on whether the preamble is limiting. *See generally* Prelim. Resp.; Pet. At this stage of the proceeding, we do not determine whether the preamble is limiting, as we find Petitioner sufficiently shows that Walker discloses the subject matter of the preamble.

ii. Limitation 1.a

Claim 1 further recites “a remote controller that manually selects one of the digital moving image contents provided from the first provider, the selected digital moving image content being an integral program continuing from an opening part to an ending part by way of a midstream part.” Ex. 1001, 17:32–36. Petitioner contends that Walker discloses a remote control allowing a user to select a television program to view from a

program guide. Pet. 16 (citing Ex. 1005 ¶¶ 77, 82–83, 97–98, 100, 107, 109, Figs. 4, 8–10). Petitioner, relying on Dr. Bajaj’s testimony, contends that a person of ordinary skill in the art would have understood Walker’s television program to be an integral program because the disclosed television programs are half-hour and one-hour television programs that continue from an opening part to an ending part by way of a midstream part. *Id.* at 17–18 (citing Ex. 1002 ¶ 70; Ex. 1005 ¶¶ 97–98, 100, 154, Fig. 8).

Patent Owner does not specifically respond to these arguments. *See generally* Prelim. Resp. Based on our review of the current record, at this stage of the proceeding, we determine that the information presented sufficiently supports Petitioner’s assertions as to this limitation.

iii. Limitation 1.b

Claim 1 further recites “a tuner that receives the selected digital moving image content at the midstream part of the integral program which is provided by the first provider at the time of selection by the remote controller.” Ex. 1001, 17:37–40. Petitioner contends that Walker’s user equipment 20 or user computer equipment 22, including set-top box 60 and personal computer unit 102, which include tuning circuitry for decoding received digital television channels, teaches this limitation. Pet. 18 (citing Ex. 1005 ¶¶ 62–63, 84, 90, 92, Figs. 5–6; Ex. 1002 ¶ 73). Petitioner asserts that a user may select a channel at any time during the midstream part of an integral program. *Id.* at 19 (citing Ex. 1005 ¶¶ 97–98, Fig. 8; Ex. 1002 ¶ 75).

Patent Owner does not specifically respond to these arguments. *See generally* Prelim. Resp. Based on our review of the current record, at this

stage of the proceeding, we determine that the information presented sufficiently supports Petitioner's assertions as to this limitation.

iv. Limitation 1.c

Claim 1 further recites

an I/O interface that receives from the second provider the digital moving image content including entire data of the digital moving image content from the opening part to the ending part of the integral program same as the integral program received from the first provider, the I/O interface locating the integral program in accordance with information from the tuner at the time of selection by the remote controller.

Ex. 1001, 17:41–48. Petitioner contends that Walker discloses user television equipment 18, 20, and 22 connected to communication paths 26, 27, 28, 46, and 48 via each of input/output interface 58, 104, and 10. Pet. 19–22 (citing Ex. 1005 ¶ 91; Figs. 5, 6). Petitioner identifies Walker's tuning circuitry receiving television programming from television distribution facility 14 and data source 30, i.e., a first provider. *Id.* at 10, 16, 18, 20 (citing Ex. 1005 ¶¶ 62–63, 77, 82–84, 90, 92, 97–98, 100, 107, 109, Fig. 1). Petitioner further identifies Walker's remote server 36 and server provider 50 as the claimed second provider providing digital moving image content. *Id.* at 19–20 (citing Ex. 1005 ¶ 91).

Petitioner also contends that Walker discloses providing the entire data of the streaming version of a television program. Pet. 23 (citing Ex. 1005 ¶ 174). Petitioner asserts that the I/O interface sends information identifying the channel currently being viewed to the remote server 36 to allow for locating the streaming version of the television program. *Id.* at 24 (citing Ex. 1005 ¶ 174, Figs. 2–6; Ex. 1002 ¶ 79). Petitioner asserts that

remote server 36 uses the received information to determine the television program to stream. *Id.* (citing Ex. 1005 ¶ 174; Ex. 1002 ¶ 79).

Petitioner asserts that the second provider receives the same integral program as the first provider because the transition from broadcast programming to streaming is “seamless” and “transparent.” *Id.* at 23 (citing Ex. 1005 ¶¶ 10, 14, 75, 155–156, 166, 169, 175). Petitioner argues that a person of ordinary skill in the art would have understood that this seamless transition would require the streamed version and the broadcast version to be the same content because otherwise a seamless transition would not be possible. *Id.* (citing Ex. 1005 ¶¶ 155–156; Ex. 1002 ¶ 78).

Petitioner contends that a person of ordinary skill in the art would have understood Walker’s “*locating using the current channel being viewed is in accordance with (e.g., conforms with) information from the tuner (tuning circuitry).*” *Id.* at 24. Petitioner, relying on Dr. Bajaj’s testimony, further contends that “*information also is from the tuner at the time of selection by the remote controller* because the tuner will have tuned to the selected channel as soon as the user selected it.” *Id.* at 25 (citing Ex. 1002 ¶ 80). Petitioner further contends that “it also would have been obvious to a [person of ordinary skill in the art] that Walker discloses locating . . . [the] entire data of the digital moving image content . . . at the time of selection by the remote controller.” *Id.* (citing Ex. 1002 ¶ 81) (emphasis omitted). Specifically, Petitioner contends that the streaming versions of television programs are buffered and stored on the user equipment to improve the quality of the displayed content. *Id.* (citing Ex. 1005 ¶ 157).

In the alternative, Petitioner asserts that Walker’s disclosed video on demand (VOD) and video recordings features meet this limitation.

Pet. 27–28. Petitioner contends that a [person of ordinary skill in the art] would have understood that VOD content and video recordings received from server 36 or service provider 50 would include the entire data of the digital moving image contents. *Id.* at 27 (citing Ex. 1005 ¶¶ 50–59, 120, 130, 140, Figs. 14–15). Petitioner asserts that a user would select VOD content or video recording for playback or later viewing and an ordinarily skilled artisan would understand that the VOD content or video recording would be located in accordance with information from the tuner at the time of selection. *Id.* (citing Ex. 1005 ¶¶ 120–123, 125–126, 140–143, Figs. 14–15, 20–21; Ex. 1002 ¶¶ 83–84).

Patent Owner addresses Petitioner’s primary and alternative contentions as to limitation 1.c. Prelim. Resp. 5–21.

As to Petitioner’s primary contentions based on the streaming version, Patent Owner argues that the Petition fails to (1) identify any programming received at an I/O interface from the second provider; (2) identify any digital content streamed from the second provider; and (3) establish that the I/O interface receives the same integral program from the first and second providers. *Id.* at 5–7, 18–21. Patent Owner argues that the Petition merely provides a series of disconnected citations with no explanation of how Walker meets the requirements of 1.c. *Id.* at 19.

Based on the current record and for purposes of institution, we are persuaded that Walker teaches this limitation. With regard to Patent Owner’s arguments (1) and (2), as discussed above, Petitioner contends that Walker discloses remote server 36 and service provider 50, which may deliver “interactive media streams” to “user equipment.” Pet. 14 (citing Ex. 1005 ¶¶ 58, 155–159, 184); *supra* 1.pre § IV.D.2.a.i. Petitioner

identifies Walker's remote server 36 or service provider 50 as the claimed "second provider." *Id.* Petitioner then contends that the interactive streams may be received from remote server 36 and service provider 50 via the user equipment's input/output interface. *Id.* at 19–20 (citing Ex. 1005 ¶¶ 83–84, 91).

Walker discloses that "[t]elelevision programming, video-on-demand content, video recordings played back from a network-based video recorder, and other information may be received from paths 28 and 48 (FIG. 1) using input/output 104." Ex. 1005 ¶ 83 (emphasis added). Walker further discloses that "[t]elelevision and music programming may be received via input/output 108 (e.g., from programming sources 12, servers or other equipment such as *server 36*, service providers such as *service provider 50*, and television distribution facility 14)." *Id.* ¶ 91 (emphasis added). Walker also discloses that "[p]ersonal computer unit 98 may contain a television or video card such as television tuner card for decoding analog and digital television channels and for handling streaming video content." *Id.* ¶ 84. As Petitioner points out, Figure 1 of Walker shows "paths 42, 46, and 48 connecting user equipment 18, 20, and 22 to server 36 and service provider 50 via network 34 and paths 40 and 54." Pet. 21 (citing Ex. 1005, Fig. 1); *see also id.* at 19–22 (citing Ex. 1005, Figs. 5, 6). We are thus persuaded, on the current record, that Walker teaches an I/O interface that receives digital content from the second provider and that the second provider streams digital content.

As to Patent Owner's argument (3), Petitioner cites to multiple sections of Walker disclosing that switching between live broadcasted content and streamed content in Walker's system is "seamless,"

“transparent,” and that the “switch [] may not be noticed.” *Id.* at 23 (citing Ex. 1005 ¶¶ 14, 75, 156, 166, 169, 175). Dr. Bajaj persuasively testifies that a person of ordinary skill in the art “would have understood from Walker’s disclosures that the streamed version is provided to allow the user to pause, fast-forward, and resume the content provided via broadcast, and that the content of the streamed version broadcast version is the same because otherwise that functionality would not be possible.” Ex. 1002 ¶ 78. At this stage, we agree with Petitioner that an ordinarily skilled artisan would have understood that Walker’s disclosures underscore that the content of the live broadcast and the streamed version must be the same to allow for seamless and transparent switching between the broadcast version and the streamed version. Pet. 23–24 (citing Ex. 1002 ¶ 78). Thus, we are persuaded on the current record that Walker teaches a user equipment’s I/O interface that receives digital moving content from the second provider and that the received digital content is the same as the content received from a first provider.

Patent Owner also addresses Petitioner’s contentions in the alternative based on VOD and video recording. *Id.* at 27–28. Here, Patent Owner presents two arguments. First, Patent Owner argues that the Petition fails to demonstrate how VOD content and video recordings are the same program as the “integral program received from the first provider.” Prelim. Resp. 11. Patent Owner’s annotated version of Walker’s Figure 7 is reproduced below.

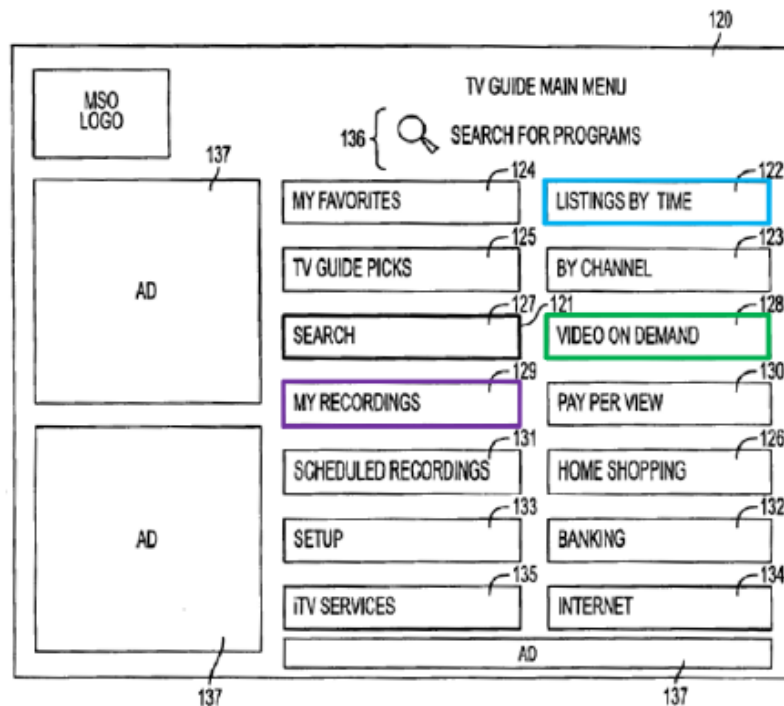


FIG. 7

Id. at 13 (annotating Ex. 1005, Fig. 7). Figure 7 depicts a “TV GUIDE MAIN MENU” that provides a user with multiple selectable options. Ex. 1005 ¶ 94. Patent Owner annotates three options, the “MY RECORDINGS” option in purple, the “LISTINGS BY TIME” option in blue, and the “VIDEO ON DEMAND” option in green. Prelim. Resp. 13.

According to Patent Owner, if a user wishes to view VOD content the user must first access the video-on-demand menu by selecting the “VIDEO ON DEMAND” option (outlined in green above) in Walker’s “TV GUIDE MAIN MENU.” Prelim. Resp. 14–15 (citing Ex. 1005 ¶¶ 119–123, 125, Fig. 7). Patent Owner contends that once at the video-on-demand menu 202, the user can select desired VOD content, which is then delivered to the user equipment. *Id.* at 15 (citing Ex. 1005 ¶ 125). Patent Owner asserts that a user must similarly first select the “MY RECORDINGS” option (outlined in purple above) in Walker’s “TV GUIDE MAIN MENU” to view a list of the

user's saved recordings. A user may then select a desired recorded program for playback. *Id.* (citing Ex. 1005 ¶ 143, Fig. 20a). Patent Owner contends that the "LISTINGS BY TIME" option allows a user to select and watch programs currently being broadcasted from television distribution facility 14. *Id.* at 14 (citing Ex. 1005 ¶¶ 100, 109).

Patent Owner argues that each of the three options: VOD content, video recordings, and broadcasts from television distribution facility 14 (claimed "first provider"), are their own separate processes, and Walker does not disclose VOD content or recorded video selecting and receiving the *same* "integral program received from the first provider [(television distribution facility 14)]" because there is "no connection whatsoever" between the three options. *Id.* at 12, 16.

Second, Patent Owner argues that Walker does not disclose locating VOD content or video recordings using information from the tuner at the time of selection. *Id.* at 16–18. According to Patent Owner, Walker's interactive application locates the VOD content or recorded videos when a user navigates to the respective menu and then selects the desired content. *Id.* at 17. Patent Owner argues that the Petition fails to explain how any information from the tuner is "extracted" from the broadcast signals of television distribution facility 14 and utilized to locate VOD content or video recordings. *Id.* at 16.

Because we determine above that Petitioner has shown that Walker teaches this limitation based on Petitioner's primary contentions, related to streaming media, we need not resolve the parties' dispute as to Petitioner's alternative contentions at this stage. We do, however, find some merit to Patent Owner's argument that Petitioner does not clearly explain how

Walker’s disclosure of the use of VOD and video recordings satisfies locating the integral program in accordance with information from the tuner at the time of selection by the remote controller. Prelim. Resp. 17–18. It appears from Walker’s disclosure, cited by Patent Owner, that the user simply selects the desired VOD content or recording to play from a list. It is thus unclear how information from the tuner would be necessary or useful in “locating the integral program . . . *at the time of selection* by the remote controller.”

Based on our review of the current record and for the reasons discussed above, we determine that the information presented supports sufficiently Petitioner’s assertions as to this limitation.

v. *Limitation 1.d*

Claim 1 further recites “a television display that shows the digital moving image contents from the first provider and the second provider.” Ex. 1001, 17:49–51. Petitioner identifies display 114 of televisions 64/68, displays 154/294/300, and monitor 102 as showing the television program provided by the first provider and the second provider. Pet. 28 (citing Ex. 1005 ¶¶ 62, 70, 79, 102, 164, 173, Figs. 2–4, 6, 9, 24, 25; Ex. 1002 ¶ 85).

Patent Owner does not specifically respond to these arguments. *See generally* Prelim. Resp. Based on our review of the current record, at this stage of the proceeding, we determine that the information presented sufficiently supports Petitioner’s assertions as to this limitation.

vi. *Limitation 1.e*

Claim 1 further recites “a memory in a TV set computer that stores the entire data of the digital moving image content received by the I/O

interface.” Ex. 1001, 17:51–54. Petitioner contends that Walker discloses a storage 112. Pet. 29 (citing Ex. 1005 ¶ 92, Fig. 6). Petitioner further contends that Walker discloses the streaming program “stored on the user equipment.” *Id.* at 28 (citing Ex. 1005 ¶ 157).

Patent Owner does not specifically respond to these arguments. *See generally* Prelim. Resp. Based on our review of the current record, at this stage of the proceeding, we determine that the information presented sufficiently supports Petitioner’s assertions as to this limitation.

vii. Summary

For the foregoing reasons, Petitioner has established a reasonable likelihood that it would prevail in showing that Walker would have rendered the subject matter of claim 1 of the ’592 patent obvious to one of ordinary skill in the art at the time of the invention.

3. Claims 2, 3, and 5

Petitioner contends that claims 2, 3, and 5 of the ’592 patent would have also been obvious over Walker. Pet. 42–66, 66–71 (citing Ex. 1002 ¶¶ 93–99, 104–108). Patent Owner does not specifically respond to these arguments. *See generally* Prelim. Resp. Based on our review of the current record, at this stage of the proceeding, we determine that Petitioner has established a reasonable likelihood that it would prevail in showing that the Walker would have rendered the subject matter of claims 2, 3, and 5 of the ’592 patent obvious to one of ordinary skill in the art at the time of the invention.

E. Ground 2: Alleged Obviousness over Chang; Ground 3: Alleged Obviousness over Walker and Chang

1. Overview of Chang

Chang describes “a system and method for providing a user with the ability to store music videos clip that the user is viewing on a video music channel.” Ex. 1004 ¶ 2. Chang explains that a user viewing a video music channel can instantly select a viewed video for storage, in its entirety, even after it has begun. *Id.* ¶ 9.

Figure 1, reproduced below, illustrates the overall system configuration of the music video download system. Ex. 1004 ¶ 12.

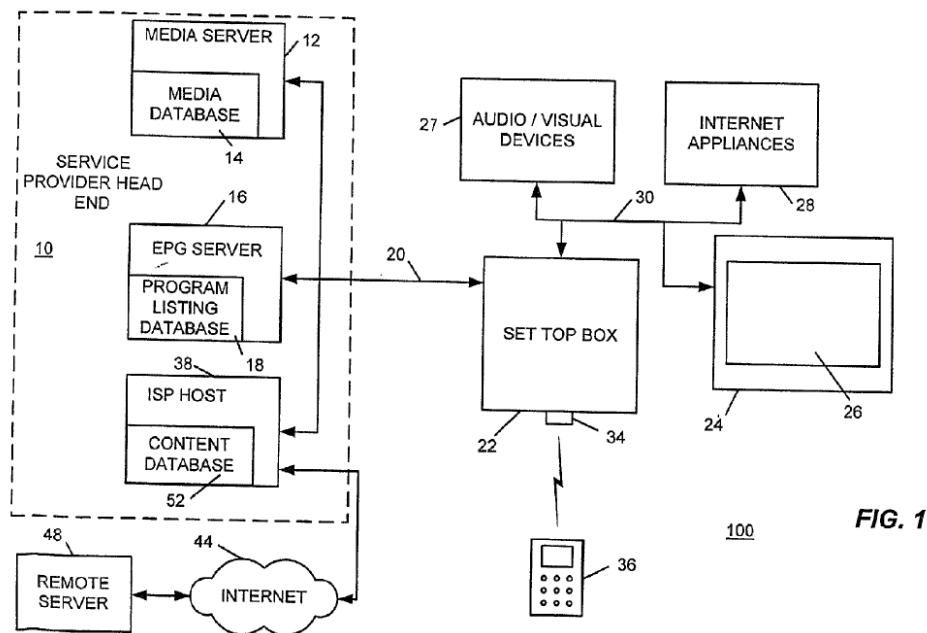


Figure 1 depicts system 100 including a service provider head end 10, set top box 22, television 24, audio/visual devices 27, internet appliances 28, and remote server 48. *Id.* ¶ 17. Service provider head end 10 includes media server 12, media database 14, electronic program guide server 16, program listing database 18, ISP host 38, and content database 52. *Id.* ¶ 17.

2. Claims 1–3 and 5

Petitioner asserts that claims 1–3 and 5 of the '592 patent would have been obvious over Chang alone or in combination with Walker. Pet. 42–66, 66–71. Patent Owner responds that these grounds fail because (1) Chang does not disclose its selected program segments being received from the ISP host; (2) a person of ordinary skill in the art would have had no reason to store Chang's program segments of the broadcast program on the ISP host's database; and (3) the Petition fails to explain how Chang's program "segments" are "entire data" in the context of Chang. Prelim. Resp. 21–30. Because we have determined above that, at this stage of the proceeding and on the present record, the information presented in the Petition shows that there is a reasonable likelihood that Petitioner will prevail with respect to its challenge based on Walker (Ground 1), we need not address, in this Decision, Petitioner's additional challenges (Grounds 2 and 3). *See* 35 U.S.C. § 314(a); *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1356 (2018) ("Section 314(a) does not require the Director to evaluate every claim individually. Instead, it simply requires him to decide whether the petitioner is likely to succeed on 'at least 1' claim. Once that single claim threshold is satisfied, it doesn't matter whether the petitioner is likely to prevail on any additional claims; the Director need not even consider any other claim before instituting review."); 37 C.F.R. § 42.108(a).

V. CONCLUSION

For the reasons discussed above, we do not exercise our discretion to deny institution. Additionally, Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that at least one claim of the '592 patent is unpatentable. Our analysis is based on the preliminary record

developed thus far and may change after the record is developed fully during trial.

VI. ORDER

In consideration of the foregoing, it is hereby

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review is instituted for claims 1–3 and 5 of the '592 patent on the unpatentability grounds asserted in the Petition; and

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

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Patent 10,880,592 B2

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