

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC,
Petitioner,

v.

TOUCHSTREAM TECHNOLOGIES, INC.,
Patent Owner.

IPR2024-00324
Patent 11,048,751 B2

Before GEORGIANNA W. BRADEN, MICHELLE N. WORMMEESTER,
and MATTHEW S. MEYERS, *Administrative Patent Judges*.

WORMMEESTER, *Administrative Patent Judge*.

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

I. INTRODUCTION

Comcast Cable Communications, LLC (“Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting *inter partes* review of claims 1–20 of U.S. Patent No. 11,048,751 B2 (Ex. 1101, “the ’751 patent”). Touchstream Technologies, Inc. (“Patent Owner”) filed a Preliminary Response (Paper 9, “Prelim. Resp.”). With our authorization, Petitioner filed a preliminary Reply (Paper 11, “Prelim. Reply”), and Patent Owner filed a preliminary Sur-reply (Paper 12, “Prelim. Sur-reply”). *See* Ex. 3001.

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 institute an *inter partes* review of all challenged claims on all challenges raised in the Petition.

II. BACKGROUND

A. Related Proceedings

The parties identify various related matters. Pet. ix–xi; Paper 8 at 1–2 (Patent Owner’s First Amended Mandatory Notices). One related matter is *Touchstream Technologies, Inc. v. Comcast Cable Communications, LLC*, No. 2:23-cv-00062-JRG (E.D. Tex.). Pet. ix; Paper 8 at 1. Petitioner also challenges claims 1–20 of the ’751 patent in IPR2024-00323, in which we deny institution.

B. The '751 Patent

The '751 patent relates to “play control of content on a display device.” Ex. 1101, 1:19–20. As an example, the '751 patent describes “operat[ing] a television set or other display remotely from a personal computing device, such as a mobile phone.” *Id.* at 1:37–41. To illustrate one embodiment, Figure 1 of the '751 patent is reproduced below.

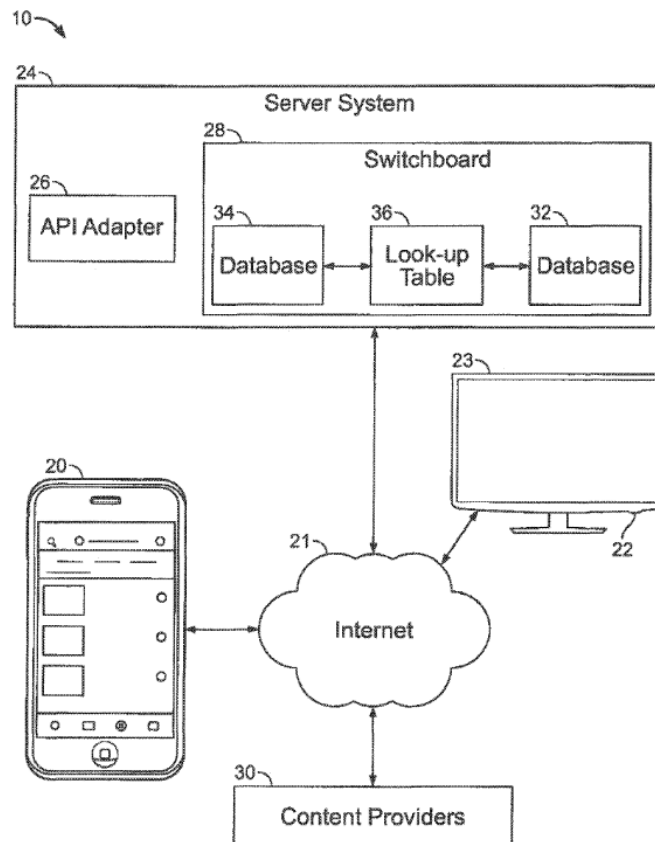


FIG. 1

Figure 1 is a block diagram of system 10, which includes personal computing device 20 and television set 22 with display 23. *Id.* at 2:53–54, 3:13–21. Personal computing device 20 displays an application or website that includes information and links to content providers 30 on Internet 21. *Id.* at 3:21–24. A user may use personal computing device 20 to select specific content to be displayed on television display 23. *Id.* at 3:26–30. In

this way, personal computing device 20 may act as a controller, and television set 22 may act as a receiver that plays content selected by the user. *Id.* at 3:15–21.

When the user of personal computing device 20 selects specific content to be displayed on television display 23, personal computing device 20 sends a signal through Internet 21 to server system 24. Ex. 1101, 3:26–30. Server system 24 then sends a corresponding command signal to television set 22, which acts on a transmission code included within the signal and performs specified commands. *Id.* at 3:30–33. These commands may instruct television set 22 to access a certain content provider 30 through Internet 21, load a specific media player, load the media player-specific content (e.g., a video), and play the content on television display 23. *Id.* at 3:33–37.

The user may further use personal computing device 20 to control how the content is played on television display 23. Ex. 1101, 3:37–39. For example, the user may input play commands such as play, pause, stop, rewind, and fast forward. *Id.* at 3:51–54. These play commands also are passed from personal computing device 20, through server system 24, to television set 22. *Id.* at 3:54–56.

C. Illustrative Claim

Petitioner challenges claims 1–20 of the '751 patent, where claims 1, 12, and 17 are independent. Claim 1 is illustrative:

1. A non-transitory computer storage medium storing computer-useable instructions that, when used by a first computing device, cause the first computing device to perform operations comprising:

obtaining a synchronization code associated with the first computing device, wherein the associated synchronization code is stored on a remote server device;

providing the synchronization code to a second computing device in communication with the remote server device, wherein the provided synchronization code causes the remote server device to store an association between the first computing device and the second computing device;

receiving, from the remote server device, a first message that includes at least one command in a first format, the first message being received based at least in part on the stored association and on a second message including at least one command in a second format having been sent from the associated second computing device;

selecting a first media player application from a plurality of media player applications based at least in part on the first format of the first message, the first media player application being selected to play a first piece of content referenced in the received first message; and

controlling how the selected first media player application plays the referenced first piece of content based on a first command of the at least one command in the first format having been included in the received first message.

Claim 12 is directed to “[a] computer-implemented method for remotely presenting various types of content.” Claim 17 is directed to “[a] content presentation device.” Both claims 12 and 17 recite similar limitations as claim 1.

D. Asserted Challenges to Patentability

Petitioner asserts the following three challenges to claims 1–20 of the ’751 patent. Pet. 18, 21–85.

Claims Challenged	35 U.S.C. §	References/Basis
1–20	103(a) ¹	Danciu, ² Mahajan ³
1–20	103(a)	Danciu, Mahajan, Calvert ⁴
1–20	103(a)	Aldrey, ⁵ Mahajan

In support of its challenges, Petitioner relies on a Declaration of David B. Lett (Ex. 1102).

III. DISCUSSION

A. Discretionary Denial Under 35 U.S.C. § 325(d)

Patent Owner argues that we should exercise discretion to deny institution under 35 U.S.C. § 325(d) because, according to Patent Owner, the same or substantially the same prior art previously was presented to the Office. Prelim. Resp. 2, 12–13, 38–43; Prelim. Sur-reply 3–5. For the reasons stated below, we decline to exercise discretion to deny on this basis.

Section 325 of Title 35 of the United States Code addresses the relationship of proceedings before the Board with other proceedings in the Office, and provides, in part, that

¹ 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 ’751 patent issued claims the benefit of priority to an application that was filed before this date, the pre-AIA version of § 103 applies.

² Danciu et al., U.S. Patent No. 9,490,998 B1, issued Nov. 8, 2016 (Ex. 1112).

³ Mahajan et al., U.S. Publ’n No. 2009/0248802 A1, published Oct. 1, 2009 (Ex. 1114).

⁴ Calvert, U.S. Publ’n No. 2004/0078812 A1, published Apr. 22, 2004 (Ex. 1111).

⁵ Aldrey et al., U.S. Publ’n No. 2009/0172757 A1, published July 2, 2009 (Ex. 1115).

[i]n determining whether to institute or order a proceeding under this chapter, chapter 30, or chapter 31,^[6] 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.

In evaluating arguments under Section 325(d), we use a two-part framework, determining, first, “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.” *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential). If either condition of the first part of the framework is satisfied, we then determine “whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.” *Id.*

Patent Owner argues that the first part of the *Advanced Bionics* framework is met because “[t]he examiner considered Mahajan during prosecution of the ’751 Patent,” and because “the Danciu art is substantially similar to and also cumulative of art that was considered by the Office.” Prelim. Resp. 38–39. We disagree.

Although Mahajan was cited during prosecution of the ’751 patent (*see* Ex. 1104, 72 (prosecution history file)), we are not persuaded that Danciu is substantially the same art previously presented to the Office. Patent Owner argues that “Danciu describes and is substantially similar to the YouTube Remote and YouTube Leanback services,” which “were before the Examiner during prosecution.” Prelim. Sur-reply 3 (citing Ex. 1101, 3 (“Other Publications” listing under “References Cited” section); *see also*

⁶ Chapter 31 (35 U.S.C. §§ 311–319) relates to *inter partes* review.

Prelim. Resp. 40 (citing Ex. 1104, 544 (IDS signed by Examiner)). Patent Owner's general assertion of similarity is insufficient to satisfy the first part of the *Advanced Bionics* framework. Rather, Patent Owner must provide a more substantive analysis comparing the teachings to show that they are substantially the same. Patent Owner does not even direct us to the YouTube Remote and YouTube Leanback prior art in the record so that we can evaluate it, and the presence of those documents is not readily apparent. *Cf. SmithKline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1320 (Fed. Cir. 2006) ("Judges are not like pigs, hunting for truffles buried in briefs." (quoting *United States v. Dunkel*, 927 F.2d 955, 956 (7th Cir. 1991))); *DeSilva v. DiLeonardi*, 181 F.3d 865, 867 (7th Cir. 1999) ("[a] brief must make all arguments accessible to the judges, rather than ask them to play archaeologist with the record.").

In its preliminary Sur-reply, Patent Owner argues that "Danciu (like the YouTube-related services it describes) only provides control over content from a single source and using a single media player—YouTube." Prelim. Sur-reply 3–4. If the YouTube-related art before the Examiner is, as Patent Owner describes, then it differs materially from Danciu, which discloses controlling content from more than one source, as explained further below. *See infra* Part III.D.2.

We note Patent Owner adds that a "jury trial confirms the Examiner made no 'material error.'" Prelim. Sur-reply 4. Patent Owner's contention in this regard is unavailing, however, because § 325(d) authorizes denial when "the same or substantially the same prior art or arguments previously were presented to the Office," not a district court.

Because we determine that the first part of the *Advanced Bionics* framework is not satisfied, we decline to deny institution under 35 U.S.C. § 325(d).

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

As discussed above, the '751 patent is the subject of a related district court proceeding. Pet. ix, 18. Patent Owner argues that we should exercise discretion to deny institution under 35 U.S.C. § 314(a) because the factors identified in *Apple, Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential), weigh in favor of denying institution in view of the related district court litigation. Prelim. Resp. 43–55; Prelim. Sur-reply 1–4. For the reasons explained below, we decline to exercise discretion to deny on this basis.

We consider the following six 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.

Fintiv, Paper 11 at 5–6.

1. Factor 1 – Likelihood of Stay

Petitioner has not yet requested a stay but represents “its intention to request a stay if this IPR is instituted.” Prelim. Reply 2. Patent Owner argues that the related district court litigation is unlikely to be stayed based on that court’s low grant rate in other cases. Prelim. Resp. 45 (citing Ex. 2002 (report on federal motion chains)). Petitioner argues that Factor 1 is neutral and that Patent Owner’s stay statistics fail to account for the timing of the motions requesting a stay. Pet. 18; Prelim. Reply 1–2.

On this record, we decline to speculate as to how the district court might rule on a motion that Petitioner has not yet filed. Thus, we determine that this factor is neutral.

2. Factor 2 – District Court Trial Date

The related district court litigation is currently scheduled for trial on October 28, 2024. Pet. 18; Prelim. Resp. 45. Patent Owner argues that this schedule is consistent with the district court’s median time-to-trial, which Patent Owner states is twenty-one months. Prelim. Resp. 46 (citing Ex. 2004 (report on time to milestones)); *see Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation* (USPTO June 21, 2022) (“Guidance Memo”)⁷ at 8–9 (providing that “[p]arties may present evidence regarding the most recent statistics on median time-to-trial for civil actions in the district court in which the parallel litigation resides[] for the PTAB’s consideration”). Patent

⁷ Available at https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf.

Owner further argues that Factor 2 favors discretionary denial because the district court trial date is more than eight months before our final written decision would be due if we instituted in July 2024. Prelim. Resp. 45.

Petitioner does not dispute Patent Owner's evidence regarding time-to-trial. *See generally* Prelim. Reply (addressing only Factors 1 and 4). Patent Owner's representation of median time-to-trial of twenty-one months is consistent with the most recent available data from the judiciary.⁸ *See* Ex. 2005 (complaint filed February 17, 2023). Petitioner acknowledges that trial is scheduled for October 28, 2024, but notes that it has pending motions to transfer. Pet. 18. According to Patent Owner, however, the district court has since denied Petitioner's transfer motions. Prelim. Resp. 46 (citing Ex. 2006 (order denying transfer motion)).

We find that the related district court litigation's trial date and the district court's median time-to-trial favor denial.

3. Factor 3 – Investment in Related District Court Litigation

Petitioner argues that “[f]actor three does not warrant denial” because the district court “has not yet begun the claim construction process and fact discovery does not close until June 2024.” Pet. 18. By Petitioner's own admission, fact discovery will have closed by the deadline for institution, and we evaluate the investment in the related district court litigation as of the time of the institution decision. *See Fintiv*, Paper 11 at 9–10. Furthermore, Patent Owner argues that expert discovery also will be closed by the deadline for institution, and substantial work on claim construction will have

⁸ Available at https://www.uscourts.gov/sites/default/files/fcms_na_distprofile1231.2023_0.pdf.

happened, including a claim construction hearing scheduled for May 16, 2024. Prelim. Resp. 47–48 (citing Ex. 2003 (docket order); Ex. 2007 (infringement contentions); Ex. 2009 (defendants’ third supplemental disclosures); Ex. 2022 (excerpt of post-trial motions hearing transcript)).

Patent Owner also argues that Petitioner filed the Petition “almost seven months after learning of the asserted claims and almost five months after serving its initial invalidity contentions,” which, according to Patent Owner, shows lack of diligence in filing the Petition. Prelim. Resp. 49–50; *see Fintiv*, Paper 11 at 11–12 (noting that the timing of the Petition’s filing relative to learning the asserted claims may be considered for Factor 3).

We agree with Patent Owner that Factor 3 favors denial. Petitioner relies only on claim construction and fact discovery, which have progressed or have been completed by now. Patent Owner shows that the related district court litigation has progressed in other aspects as well and notes Petitioner’s delay in filing the Petition. Petitioner does not further address Factor 3 in its authorized preliminary Reply. *See generally* Prelim. Reply.

4. Factor 4 – Overlap of Issues

Petitioner argues that “[f]actor four strongly favors institution” because the Petition challenges all claims of the ’751 patent while only claims 1, 2, 5, and 7–9 are asserted in the related district court litigation. Pet. 19. Petitioner also states that it “stipulates not to pursue in the District Court any ground that utilizes the same combination of prior art references relied upon in the instituted petition.” *Id.* (citing Ex. 1182 (stipulation)). Petitioner’s characterization of the stipulation is slightly different from the

stipulation itself, which states that, if trial is instituted, Petitioner “will not pursue in [the related district court litigation] the specific grounds against the instituted patent(s) as set forth in the respective instituted *inter partes* review petition(s).” Ex. 1182, 1–2. Patent Owner argues that the “as set forth” language could be read broadly to allow Petitioner, in the related district court litigation, to rely on the same combination of prior art in a different manner than “set forth” in the Petition. Prelim. Resp. 51.

Patent Owner also argues that Charter Communications, Petitioner’s co-defendant in the related district court litigation, “is pursuing almost identical invalidity defenses and has not agreed to be bound by any such stipulation.” Prelim. Resp. 51. According to Patent Owner, “Petitioner and Charter’s cases remain consolidated for all pretrial purposes and issues of invalidity will likely be dealt with at the same time.” *Id.* at 51–52 (citing Ex. 2013 (order consolidating “for pretrial purposes”)).

Petitioner argues, however, that Charter is not a co-defendant but was sued separately, that the district court consolidated the cases for pretrial purposes only, and that invalidity will be a trial issue. Prelim. Reply 2–3. Petitioner also argues that Charter is not a real party in interest or privy in this proceeding and that Petitioner “cannot be held responsible for the acts of Charter.” *Id.* at 3.

Patent Owner responds that it “must still prepare for and defend against the petitioned grounds in a jury trial, regardless whether the Board institutes on the Petition” because Charter is pursuing the same invalidity defenses. Prelim. Sur-reply 3.

We agree with Petitioner that Charter’s invalidity defenses cannot be held against Petitioner. This is evident from the Guidance Memo, which

provides that “the PTAB will not discretionarily deny institution in view of parallel district court litigation where a petitioner presents a stipulation not to pursue in a parallel proceeding the same grounds or any grounds that could have reasonably been raised before the PTAB.” Guidance Memo 3. This provision applies even if another defendant might pursue such grounds in parallel litigation. Petitioner can only control what it pursues in the related district court litigation, and Petitioner’s case is consolidated with Charter’s case only for pretrial purposes, not for trial. Ex. 2013.

On the other hand, we agree with Patent Owner that the language in Petitioner’s stipulation in Exhibit 1182 does not eliminate overlap with district court invalidity arguments. Furthermore, Petitioner’s stipulation “not to pursue in the District Court any ground that utilizes the same combination of prior art references relied upon in the instituted petition” (Pet. 19) allows Petitioner to utilize a prior art reference that may be considered a primary reference, that is one disclosing a majority of the claim limitations, in combination with a reference that is not relied on in the Petition. This may not address adequately “concerns of inefficiency and the possibility of conflicting decisions.” See *Fintiv*, Paper 11 at 12.

Finally, we agree with Petitioner that the fact that the Petition challenges claims that are not asserted in the litigation shows that there is not complete overlap. Patent Owner asserts that “Petitioner does not even attempt to show” that certain challenged-but-unasserted claims “present different issues of invalidity from the asserted claims.” Prelim. Sur-reply 3. Even so, they are different claims, Petitioner challenges their patentability, and the district court will not resolve the issue. Cf. *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1355 (2018) (“[I]n an inter partes review the petitioner is

master of its complaint and normally entitled to judgment on all of the claims it raises”).

In view of the foregoing, we determine that Factor 4 weighs slightly against denial.

5. Factor 5 – Defendant in District Court

Petitioner is the defendant in the related district court case. Pet. 19; Prelim. Resp. 52. We find that this factor favors denial. *See Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020) (precedential as to § II.A).

6. Factor 6 – Other Circumstances, Including the Merits

The sixth *Fintiv* factor takes into account other circumstances that may bear on the decision to exercise discretion to deny, such as the merits of the patentability challenges. *Fintiv*, Paper 11 at 14–16. Under this factor, “the PTAB will not deny institution based on *Fintiv* if there is compelling evidence of unpatentability.” Guidance Memo 5. Board precedent provides that we should only consider the compelling merits standard if the first five *Fintiv* factors favor discretionary denial. *CommScope Techs. LLC v. Dali Wireless, Inc.*, IPR2022-01242, Paper 23 at 4–5 (PTAB February 27, 2023) (precedential).

The second, third, and fifth *Fintiv* factors favor denial. The first factor is neutral, and only the fourth factor weighs against denial. Thus, we determine that the first five *Fintiv* factors favor discretionary denial, and we now assess compelling merits. *CommScope*, Paper 23 at 5 (“In

circumstances where, however, the Board’s analysis of *Fintiv* factors 1–5 favors denial of institution, the Board shall then assess compelling merits.”).

The compelling merits standard is met when “the evidence, if un rebutted in trial, would plainly lead to a conclusion that one or more claims are unpatentable by a preponderance of the evidence.” Guidance Memo 4. A challenge can only meet this standard “if it is highly likely that the petitioner would prevail with respect to at least one challenged claim.” *OpenSky Indus., LLC v. VLSI Tech. LLC*, IPR2021-01064, Paper 102 at 49 (PTAB Oct. 4, 2022) (precedential) (“*OpenSky*”).

In this case, we determine, for the reasons explained below in our analysis of Petitioner’s unpatentability challenges, that the Petition presents a compelling challenge at least for independent claims 1, 12, and 17.

Thus, we decline to deny institution based on the *Fintiv* factors.

C. Claim Construction

Turning to Petitioner’s unpatentability challenges, we start with claim construction. In an *inter partes* review proceeding, we construe a claim of a patent “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).” *See* 37 C.F.R. § 42.100(b). That standard involves construing claims in accordance with the ordinary and customary meaning of such claims as would have been understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. *See id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (en banc).

Petitioner asserts that “all claim terms herein should be given their ordinary and customary meaning to a [person of ordinary skill in the art],

consistent with the prosecution history, as they would be given in a civil action under 35 U.S.C. § 282(b).” Pet. 20. Patent Owner does not respond other than to say that it “reserves the right to address the proper construction of any claim terms in the future,” and that it “does not concede that the Petition uses claim language consistent with its proper construction(s).” Prelim. Resp. 19.

On this record, we determine that no claim term requires express interpretation to resolve any controversy in this proceeding. *See Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

D. Challenges Based on Danciu

Petitioner asserts that claims 1–20 of the ’751 patent would have been obvious over Danciu and Mahajan as well as over Danciu, Mahajan, and Calvert. Pet. 21–57. Patent Owner disputes certain aspects of Petitioner’s analysis. Prelim. Resp. 19–35.

As noted above, our inquiry is directed to whether the Petition meets the compelling merits standard. For the reasons explained below, we determine that the Petition meets the compelling merits standard for at least independent claims 1, 12, and 17.

1. Overview of Asserted Prior Art

Before addressing the parties’ arguments, we provide an overview of Danciu, Mahajan, and Calvert.

a. Danciu

Danciu describes “techniques for controlling networked devices.” Ex. 1112, 1:9–10. To illustrate one embodiment, Figure 1 of Danciu is reproduced below.

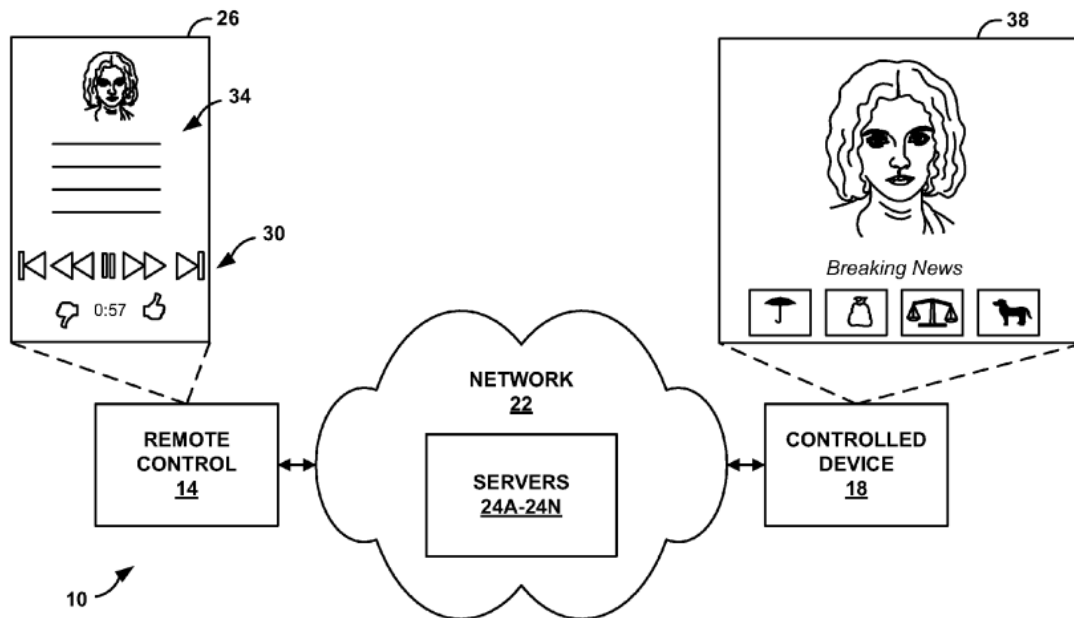


FIG. 1

Figure 1 of Danciu illustrates networked environment 10 including remote control 14 and controlled device 18. *Id.* at 4:58–61. Remote control 14 may be a web-enabled cellular phone, and controlled device 18 may be a network-enabled television or set top box. *Id.* at 5:1–2, 5:42–45. Remote control 14 communicates with controlled device 18 via servers 24A–24N (collectively, servers 24) in network 22. *Id.* at 4:61–64.

In operation, remote control 14 sends a message to server 24. Ex. 1112, 16:47–49, Fig. 6. The message may contain a remote control identifier issued by server 24 that identifies remote control 14 as being part of a session, and control information intended to alter the operation of

controlled device 18. *Id.* at 16:47–52, Fig. 6. The control information may include commands like “stop playback of content” or “move to other content,” where the content may be audio or video content on controlled device 18. *Id.* at 1:39–45, 16:52–54, Fig. 6. Server 24 then queries a database of stored identification numbers to determine which controlled device is associated with the session that includes the remote control identifier. *Id.* at 16:55–59, Fig. 6. Next, server 24 transmits the control information to intended controlled device 18. *Id.* at 16:60–65, Fig. 6. After receiving the control information, controlled device 18 executes an action in accordance with the control information. *Id.* at 16:65–67, Fig. 6.

b. Mahajan

Mahajan describes “handling media playback operations in collaboration sessions.” Ex. 1114 ¶ 11. Mahajan explains that collaboration sessions provide a remoting experience between a client computer (or client) and a server computer (or server). *Id.* Examples of collaboration sessions include remote terminal sessions, where the server’s graphical user interface (GUI) is generated on the client, and presentation sessions, where the GUI of a particular application running on the server is generated on the client. *Id.* ¶ 20.

To illustrate one embodiment of a system implementing collaboration sessions, Figure 2 of Mahajan is reproduced below.

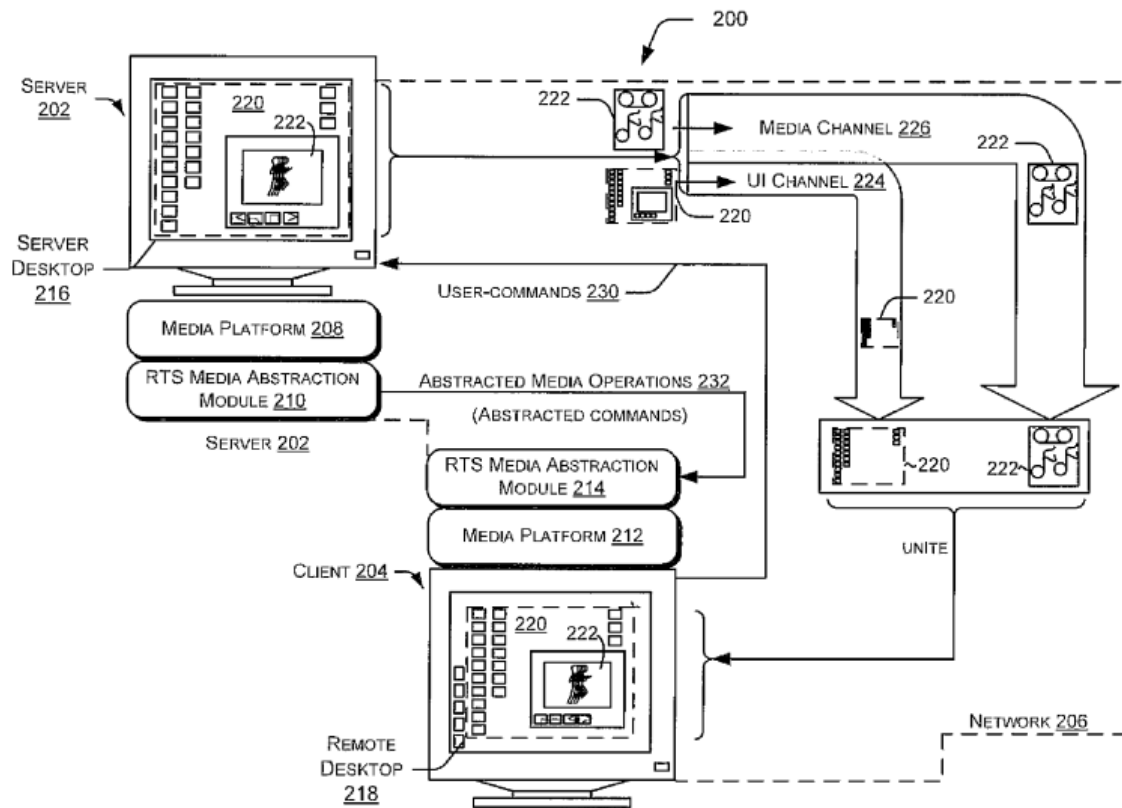


Fig. 2

Figure 2 of Mahajan illustrates system 200, which includes server 202 and client 204. Ex. 1114 ¶ 24. Server 202 and client 204 communicate over network 206. *Id.* Server 202 includes media platform 208 and remote terminal session (RTS) media abstraction module 210, whereas client 204 includes media platform 212 and RTS media abstraction module 214. *Id.*

During a remote terminal session, a user at client 204 enters user media playback commands 230 relating to remote desktop 218. Ex. 1114 ¶ 35. Commands 230 are sent from client 204 to server 202 via network 206. *Id.* The server's media platform 208 processes commands 230 into platform specific media commands (which means they are processed according to the configuration of the server). *Id.* ¶¶ 21, 35.

The platform specific media commands may be intercepted as part of the remote terminal session and sent to client 204 for execution. *Id.* ¶¶ 22, 35.

Because the client's media platform 212 may be different from the server's media platform 208, however, the client's media platform 212 may not understand the media playback commands specific to the server's media platform 208. Ex. 1114 ¶ 36. Mahajan's system therefore provides an abstraction functionality. *Id.* ¶ 13. Upon interception of the platform specific media commands, the server's RTS abstraction module 210 translates the intercepted media commands into generic or abstracted media commands 232 and then sends generic commands 232 to the client's RTS media abstraction module 214. *Id.* The client's RTS media abstraction module 214 translates generic media commands 232 into media commands that are specific to the client's media platform 212, which then executes the client specific media commands. *Id.*

c. Calvert

Calvert describes "indexing, acquiring, and playing media services, particularly media services in the form of streaming media available from a plurality of content aggregators." Ex. 1111 ¶ 1. To illustrate an embodiment, Figure 2 of Calvert is reproduced below.

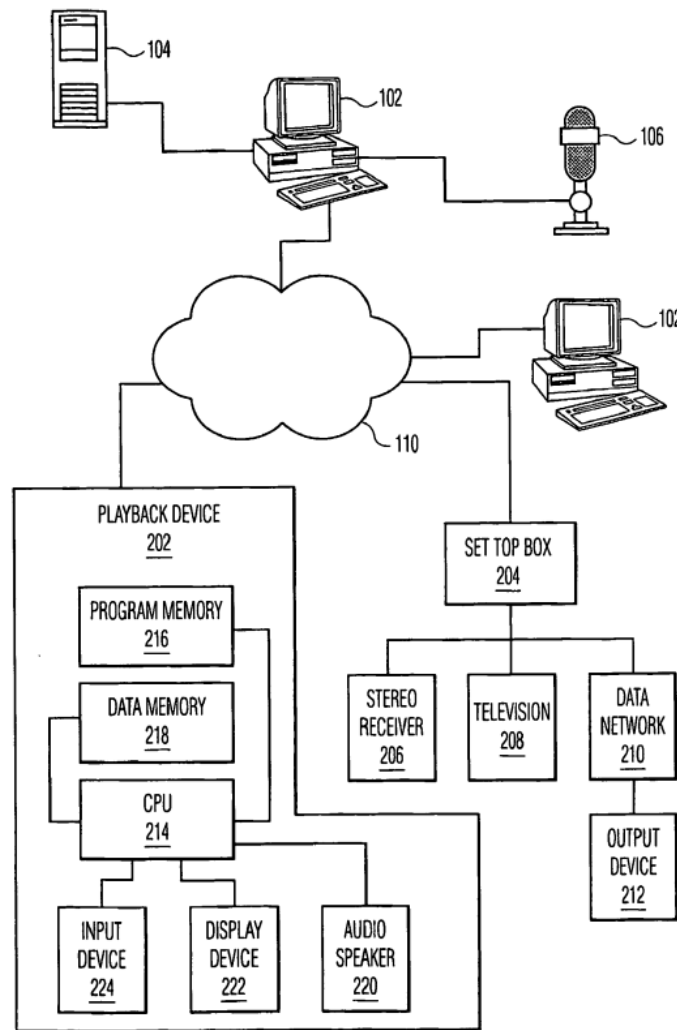


FIG. 2

Figure 2 of Calvert illustrates an internet connection between devices, including playback device 202, cable set top box 204, and content aggregators 102. *Id.* ¶¶ 10, 24. A content aggregator is a service “with an architecture where a user selects media services from categories including genre and performer.” *Id.* ¶ 7. As shown in Figure 2, content aggregator 102 receives audio based media services from audio website 104 and radio station 106. *Id.* ¶ 24.

In operation, playback device 202 accesses content aggregator 102 via communications network 110 to request a list of media services available

from content aggregator 102. Ex. 1111 ¶¶ 24–25. Display 222 displays the program genres of the audio based media services available from content aggregator 102. *Id.* ¶ 27. The genres are selected by using input device 224, which may be a button, a dial, or a touch screen interface. *Id.* After a media service is selected in this way, CPU 204 requests an audio based media service from, for example, radio station 106, through content aggregator 102. *Id.* Content aggregator 102 receives the request from playback device 202, and sends the selected media service to playback device 202 in the form of a packetized transmission. *Id.* Playback device 202 processes the media service and outputs the results through connected audio speaker 220. *Id.*

Calvert notes that the selected media service may be video based and outputted to display device 222. Ex. 1111 ¶ 27.

2. Analysis

We turn now to the claims, addressing independent claims 1, 12, and 17 together. As discussed above, claims 12 and 17 recite similar limitations as claim 1. Petitioner relies primarily on its discussion of claim 1 for claims 12 and 17. Pet. 49–51 (discussing claim 12), 54–56 (discussing claim 17). Similarly, Patent Owner raises the same arguments for claims 1, 12, and 17. Prelim. Resp. 19–35, 37. Accordingly, we focus on the language of claim 1. Our analysis of claim 1 applies to claims 12 and 17.

Claim 1 recites an “obtaining” step, a “providing” step, a “receiving” step, a “selecting” step, and a “controlling” step. We address these limitations in turn.

a. obtaining a synchronization code

Claim 1 recites a “first computing device . . . obtaining a synchronization code associated with the first computing device, wherein the associated synchronization code is stored on a remote server device.” As part of its analysis for claim 1, Petitioner provides an annotated version of Figure 1 of Danciu, reproduced below. Pet. 22.

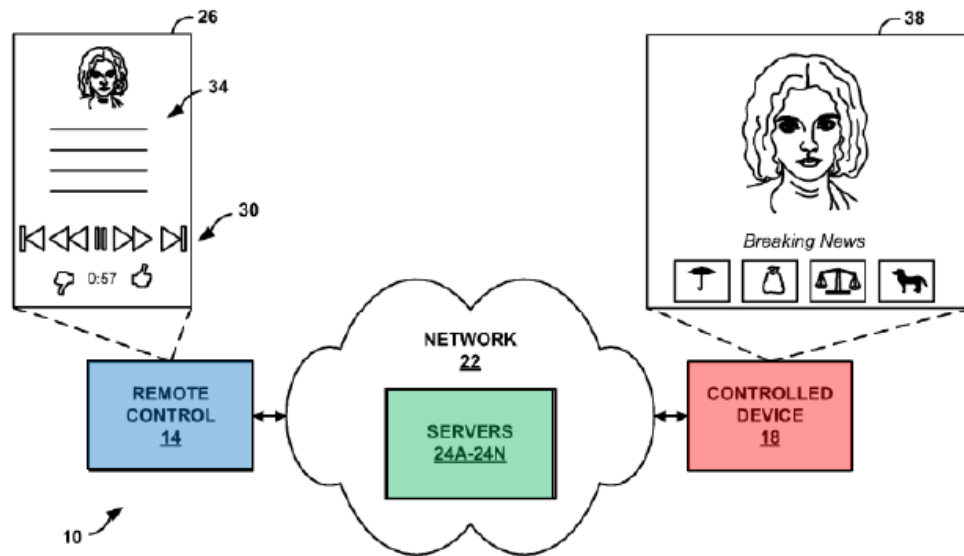


FIG. 1

Figure 1 of Danciu, as annotated by Petitioner, illustrates networked environment 10 with remote control 14 and controlled device 18. *See* Ex. 1112, 4:58–61. Petitioner identifies Danciu’s controlled device 18 as a “first computing device” and Danciu’s servers 24 as a “remote server device.” Pet. 23–24. As support, Petitioner asserts that “the controlled device may present a user with a QR code, which the user may scan with the remote control.” *Id.* (citing Ex. 1112, 4:36–45, 8:23–49, 13:16–32, 15:28–58). Petitioner contends that “[t]he QR code, which is provided by the controlled device (‘associated with the first computing device’) to the

remote control . . . may be considered as a synchronization code because it synchronizes a session to which the remote control wishes to join.” *Id.* Petitioner adds that “the QR code is generated by the device management module, which is stored on the servers.” Pet. 24 (citing Ex. 1112, 15:38–58, Fig. 5). According to Petitioner, a “[person of ordinary skill in the art] reading Danciu’s disclosure would have understood that the QR code is generated by the claimed ‘remote server device,’ and would be stored in memory on the remote server device at least during the process of generating the code.” *Id.*

Patent Owner does not dispute Petitioner’s analysis for this limitation. *See generally* Prelim. Resp.

Based on Petitioner’s arguments and evidence, we are persuaded that Danciu teaches “obtaining a synchronization code” as recited in claim 1. For example, Danciu teaches that “a user may be presented with a quick response (‘QR’) code via the controlled device that the user scans with the remote control (e.g., using a camera of the remote control),” where “[t]he QR code identifies a user account or previously initiated session maintained by the network service.” Ex. 1112, 4:36–41 (cited by Pet. 23); *see also id.* at 4:4–8 (“[T]he network service may assign each remote control and each controlled device a unique identifier. When pairing devices, the network service may utilize the unique identifier associated with each device to route communication signals properly.”) (cited by Pet. 23).

b. providing the synchronization code to a second computing device

Claim 1 recites “the first computing device . . . providing the synchronization code to a second computing device in communication with

the remote server device, wherein the provided synchronization code causes the remote server device to store an association between the first computing device and the second computing device.” For this limitation, Petitioner refers to its analysis of the limitation “obtaining a synchronization code,” discussed above. Pet. 25. In that analysis, Petitioner identifies Danciu’s remote control 14 as a “second computing device.” *Id.* at 23. Petitioner further contends that “[b]y displaying the QR code and scanning it by the remote computing device, the controlled device is ‘providing’ the QR code to the remote control.” *Id.* at 25. Petitioner adds that “Danciu teaches that unique ID numbers are sent upon scanning a QR code,” which “creates a unique session number for the session between the remote control and the controlled device.” *Id.* (citing Ex. 1112, 4:36, 7:6–10, 8:11–34). According to Petitioner, “[t]he session identifiers and other session information are stored on a data repository of the servers.” *Id.* (citing Ex. 1112, 6:50–55, 13:62–14:1, 15:28–16:6).

Patent Owner does not dispute Petitioner’s analysis for this limitation. *See generally* Prelim. Resp.

Based on Petitioner’s arguments and evidence, we are persuaded that Danciu teaches “providing the synchronization code to a second computing device” as recited in claim 1. As discussed above, Danciu teaches that “a user may be presented with a quick response (‘QR’) code via the controlled device that the user scans with the remote control (e.g., using a camera of the remote control).” Ex. 1112, 4:36–41 (cited by Pet. 23). Danciu further teaches that, after scanning the QR code, “the remote control may send a message to the network service indicating that the network service should assign a unique identification number to the remote control and pair the

remote control with the user account or session identified by the QR code.” *Id.* at 4:41–45 (cited by Pet. 23). Additionally, Danciu teaches that “device management module 168 [in the server] identifies and stores associations of remote controls 62 and controlled devices 64 to facilitate repeat communication between remote controls 62 and controlled devices 64.” *Id.* at 15:34–38 (cited by Pet. 25).

c. receiving, from the remote server device, a first message

Claim 1 recites,

the first computing device . . . receiving, from the remote server device, a first message that includes at least one command in a first format, the first message being received based at least in part on the stored association and on a second message including at least one command in a second format having been sent from the associated second computing device.

Petitioner argues that Danciu’s disclosure of sending commands to play media files from the remote control to the controlled device via the servers teaches this subject matter. Pet. 25–27. Petitioner also relies on Mahajan in combination with Danciu for this subject matter. *Id.* at 27–32. Patent Owner disputes certain aspects of Petitioner’s analysis. Prelim. Resp. 20–29, 32–34.

i. Danciu

Petitioner provides an annotated version of Figure 1 of Danciu, which is reproduced below. Pet. 26.

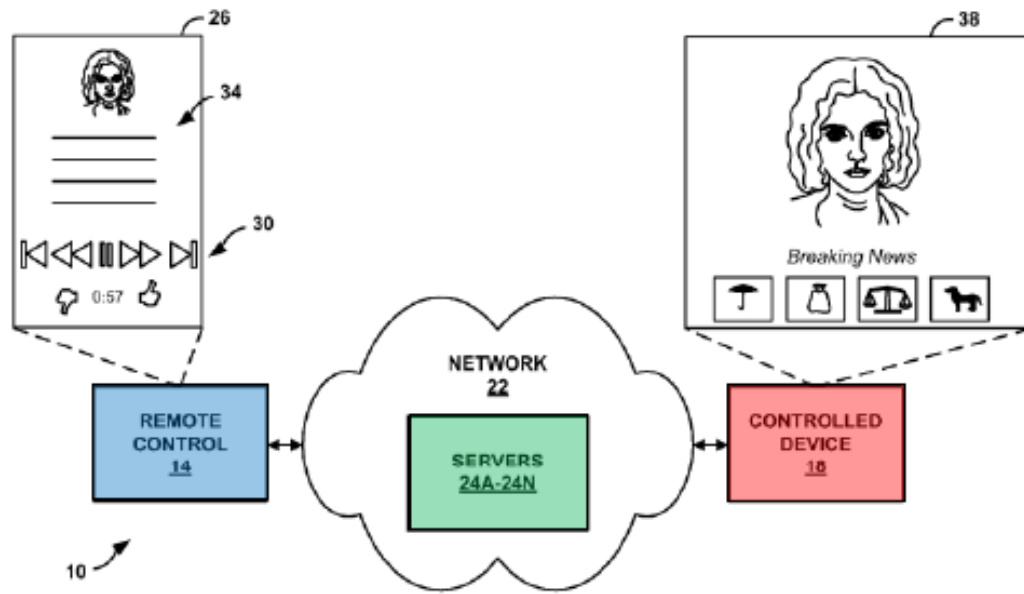


FIG. 1

Figure 1 of Danciu, as annotated by Petitioner, illustrates networked environment 10 with remote control 14 and controlled device 18. *See* Ex. 1112, 4:58–61. Referring to its version of Figure 1, Petitioner asserts that “Danciu’s remote control 14 (**blue**) provides commands (‘fast forward, reverse, skip ahead or back, play, stop, move to new content, etc.’) via servers 24 (**green**) for content being played on controlled device 18 (**red**).” Pet. 25–26 (citing Ex. 1112, 5:29–37, 5:64–6:2, 10:45–53, Fig. 1).

Petitioner contends that “[t]he received first message is ‘received based at least in part on the stored association’ because the messages are routed by the servers using the unique identifiers associated with the session information.” Pet. 26 (citing Ex. 1112, 7:17–29). Petitioner asserts that, “[u]pon scanning the QR code, the remote control sends a message requesting that the remote control ‘be included in the session identified in the QR code,’” and “[t]he servers then direct the messages in that session

from the remote control to the controlled device.” *Id.* (citing Ex. 1112, 6:50–60, 7:17–29, 8:11–34, 10:45–53, 15:42–58, 16:24–17:12).

Petitioner further contends that “Danciu teaches ‘the first message being received based at least in part . . . on a second message including at least one command in a second format having been sent from the associated second computing device.’” Pet. 27. Petitioner asserts that, “[u]sing the session identification numbers, Danciu’s servers ‘route the messages to other members of the session,’” where “there may be separate messages from the remote control to the server, and from the server to the controlled device.” *Id.* (citing Ex. 1112, 7:17–20, 16:24–17:43). As an example, Petitioner asserts that, “when receiving a message from the remote control intended for the controlled device, ‘server 24 may process and/or repackage the control information of the message into a new message.’” *Id.* (quoting Ex. 1112, 16:63–67). According to Petitioner, “[t]he message from the remote control to the server is thus ‘a second message including at least one command in a second format having been sent from the associated second computing device,’” and, “[a]fter reformatting the message, the server then sends the claimed ‘a first message that includes at least one command in a first format.’” *Id.*

Patent Owner responds that “Danciu does not disclose that the alleged *commands* have different *formats* at the specified points in the messaging process.” Prelim. Resp. 28. According to Patent Owner, “Petitioner cannot show that Danciu discloses the *commands* in *first* and *second formats* are included in the alleged messages” because “there is no evidence that the format of the alleged *command* changes (*e.g.*, is converted) between the remote control sending that command in a message to the server (the alleged

second message) and the controlled device receiving the command in a message from the server (the alleged *first message*).” *Id.* at 29. Patent Owner asserts that “the ‘servers’ [in Danciu] just provide a delivery system for the alleged *commands* and do not alter their *format*.” *Id.* at 28. With respect to Petitioner’s argument that “Danciu’s servers ‘route the messages to other members of the session’ and ‘process and/or repackage the control information of the message into a new message,’” Patent Owner says “the control information from the original message remains unchanged when the ‘new message’ is delivered to the controlled device.” *Id.*

On the record before us, we disagree with Patent Owner. Danciu teaches,

Remote control 14 transmits a control message that includes the unique identifier of remote control 14 to servers 24 via network 22. Servers 24 identify that remote control 14 is a member of a session based on the unique identification number of remote control 14. Servers 24 then route[] the control message to controlled device 18, which is also a member of the session. Controlled device 18 receives the control message and performs the appropriate action.

Ex. 1112, 7:21–29 (cited by Pet. 26). Danciu explains that server 24 “transmits the control information to the intended controlled device 18” by “forward[ing] the control information from the message directly to one or more controlled devices 18” or by “process[ing] and/or repackag[ing] the control information of the message into a new message,” so that “controlled device 18 [can] execute[] an action in accordance with the control information.” *Id.* at 16:60–67 (cited by Pet. 26). These disclosures in Danciu teach the recited limitation at issue.

Contrary to Patent Owner’s position, claim 1 does not require that the format of any command be converted, let alone that the formats of the first and second commands be different. *See* Prelim. Resp. 28–29. Indeed, claim 3, which depends from claim 1, specifically recites that “the first format is different than the second format.” Our reviewing court has explained that, “[u]nder the doctrine of claim differentiation, dependent claims are presumed to be of narrower scope than the independent claims from which they depend.” *AK Steel Corp. v. Sollac & Ugine*, 344 F.3d 1234, 1242 (Fed. Cir. 2003). Accordingly, claim 1 is not limited to different first and second formats.

In view of the foregoing, we are persuaded that Danciu alone teaches “receiving, from the remote server device, a first message” as recited in claim 1.

ii. Danciu and Mahajan

Petitioner relies on Mahajan for “implementation details for transmission of commands for controlling a client.” Pet. 27–32. Petitioner argues that “Mahajan discloses a client-server collaboration session wherein a user may enter commands . . . on Mahajan’s server . . . for controlling content . . . that is playing on a client device.” *Id.* at 27–28 (citing Ex. 1114 ¶¶ 11–13, Figs. 1, 2, 4). Petitioner summarizes Mahajan’s relevant disclosure as follows: “1) commands for a type of media playing application on the server are received at Mahajan’s server, 2) the commands are translated into a universal command, 3) the universal command is transmitted, 4) the client re-translates the universal command, and 5) the new specific command is executed.” *Id.* at 28–29 (citing Ex. 1114 ¶¶ 35–36,

Figs. 1, 2). Petitioner argues that “a [person of ordinary skill in the art] would have understood that Danciu’s remote control, which may be a portable device such as a cell phone, would likely employ different applications than Danciu’s controlled device, which may be a set top box or personal video recorder,” thus motivating a person of ordinary skill in the art “to apply Mahajan’s teachings of command conversion.” *Id.* at 31 (citing Ex. 1112, 5:1–6:13; Ex. 1102 ¶ 148).

Patent Owner responds that “Petitioner provides no justification for combining Danciu and Mahajan aside from a passing remark that both of them reference a mobile phone.” Prelim. Resp. 33–34. We disagree. Petitioner explains that it relies on Mahajan for “implementation details for transmission of commands for controlling a client.” Pet. 27. Petitioner further explains that an ordinarily skilled artisan would have considered applying Mahajan’s command conversion techniques in Danciu’s system because Danciu’s remote control and controlled device “would likely employ different applications.” *Id.* at 31. Petitioner’s proffered reasoning for combining Danciu and Mahajan is persuasive. *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (“[T]here must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”); Ex. 1114 ¶¶ 22, 36 (Mahajan explaining that “includ[ing] a collaboration media abstraction layer . . . can facilitate media-related communications between the server . . . and client,” where “the client’s media platform . . . may not be the same as the server’s media platform, . . . and as such . . . may not understand the intercepted platform-specific media commands of the server”) (cited by Pet. 28).

Moreover, that Danciu and Mahajan both describe “system[s] wherein a user can command media on a controlled device” and that applying Mahajan’s command conversion techniques was a known way to implement the transmission of such commands is sufficient reason for combining Danciu and Mahajan. *See* Pet. 27–30. Petitioner need only show that Mahajan’s command conversion techniques would have been a “suitable option” for implementation in Danciu’s system. *See Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373, 1381 (Fed. Cir. 2023). Patent Owner does not dispute that an ordinarily skilled artisan would have recognized that using Mahajan’s command conversion techniques would have supported the transmission of commands in systems like Danciu’s system. *See generally* Prelim. Resp.

Patent Owner further responds that “Petitioner argues that Danciu’s remote control, the alleged *second computing* device, would perform the disclosed operations of the server’s abstraction module in Mahajan,” and that “Danciu’s controlled device, the alleged *first computing device*, would perform the operations of Mahajan’s client abstraction module.” Prelim Resp. 32 (citing Pet. 31). According to Patent Owner, “this eliminates any possibility that the alleged conversion of Mahajan would be performed by Danciu’s servers, such that those servers would both (i) receive the *command in the second format* from Danciu’s remote control and (ii) send the *command in the first format* for the ‘controlled device’ to receive, as required by Petitioner’s claim mapping.” *Id.* at 32–33. Patent Owner’s argument in this regard assumes that claim 1 requires different first and second formats. As discussed above, however, claim 1 is not limited to

different first and second formats. Accordingly, Patent Owner's argument is unavailing.

Lastly, Patent Owner responds that "Mahajan only discloses messages between the client and server without any messaging from another computing device," and that "the Petition never suggests that Mahajan discloses or suggests this requirement." Prelim. Resp. 22–25; *see also id.* at 22 ("In contrast with the '751 Patent, Mahajan describes a *two-part* server-client architecture."). This argument also is unavailing. Petitioner expressly states that it relies on Mahajan for teaching "implementation details for transmission of commands for controlling a client." Pet. 27. Petitioner does not rely on Mahajan for teaching a "first computing device," a "second computing device," or a "remote server device"; as Patent Owner acknowledges, Petitioner relies instead on Danciu for these claim elements. *See id.* at 23–24; Prelim. Resp. 32. Thus, Patent Owner's focus on the architecture of Mahajan's system is misplaced.

For the reasons given, we are persuaded that Petitioner's proposed combination of Danciu and Mahajan teaches "receiving, from the remote server device, a first message" as recited in claim 1. We also are persuaded by Petitioner's proffered reasoning for modifying Danciu's system to apply Mahajan's command conversion techniques, namely, to provide a way to implement the transmission of commands and accommodate different applications across the remote control and controlled device. *See Kahn*, 441 F.3d at 988; *see also Intel*, 61 F.4th at 1381 (explaining that the petition need only show that the proposed combination would have provided a "suitable option").

d. selecting a first media player application

Claim 1 recites,

the first computing device . . . selecting a first media player application from a plurality of media player applications based at least in part on the first format of the first message, the first media player application being selected to play a first piece of content referenced in the received first message.

Petitioner argues that Danciu’s disclosure of sending commands to play media files from the remote control to the controlled device via the servers teaches this subject matter. Pet. 32–34. Petitioner also relies on Mahajan and Calvert in combination with Danciu for this subject matter. *Id.* at 34–38. Patent Owner disputes certain aspects of Petitioner’s analysis. Prelim. Resp. 20–27, 29–31, 34–35.

i. Danciu

Petitioner directs us to where Danciu teaches that “remote control 14 includes a user interface 26,” which “may display controls 30 and information 34 associated with content being played on controlled device 18.” Pet. 32 (citing Ex. 1112, 5:29–33); *see also* Ex. 1112, Fig. 1. Exemplary controls include “fast forward, reverse, skip ahead or back, play, stop, move to new content, etc.” Ex. 1112, 5:33–37 (cited by Pet. 32). Danciu teaches that “a user may actuate one of controls 30 of remote control 14 to alter the content displayed on display 38 of controlled device 18,” where the content includes video. *Id.* at 7:19–21 (cited by Pet. 32); *id.* at 13:13–15 (“Processor 120 then executes the video or web browser application and causes display 124 to display content to the user.”) (cited by Pet. 33). Danciu explains,

Remote control 14 transmits a control message that includes the unique identifier of remote control 14 to servers 24 via network 22. Servers 24 identify that remote control 14 is a member of a session based on the unique identification number of remote control 14. Servers 24 then routes the control message to controlled device 18, which is also a member of the session. Controlled device 18 receives the control message and performs the appropriate action.

Id. at 7:21–29 (cited by Pet. 32).

Petitioner adds that Danciu also teaches that its controlled device may work with various video services, including YouTube, Hulu, and Netflix. Pet. 32–33 (citing Ex. 1112, 5:29–37, 7:17–29, 11:22–35, 12:32–49, 13:4–15, 16:55–67, 17:21–43, Fig. 1). According to Petitioner, “[i]t would have been obvious to a [person of ordinary skill in the art] that, for a device to play[]back content on a particular application in response to a command, the device would need to select that application to play[]back the content.” *Id.* at 32.

Patent Owner responds that “the teachings of Danciu [are] focused on a single media player,” YouTube, and that Danciu’s reference to other media players is inadequate because Danciu only describes control of other media players by the controlled device (display device) itself and not by the remote control. Prelim. Resp. 29–31. According to Patent Owner, “[n]owhere does Danciu envision ‘selecting’ one media player from a plurality of media players.” *Id.* at 31.

On the record before us, we disagree with Patent Owner. Danciu teaches,

Controlled device 118 may be used, in some examples, in conjunction with a remote control, such as remote control 14 shown in FIG. 1, remote controls 62 shown in FIG. 2, or remote

control 75 shown in FIG. 3. For example, storage device 92 may store application instructions associated with a video application or web browser for displaying video content from the World Wide Web (e.g., YouTube® content, Hulu® content, Netflix® content, etc.).

Ex. 1112, 13:4–11 (cited by Pet. 33). Storage device 92 is part of the remote control. *Id.* at 8:62–65 (“Remote control 75 may include battery 80, user interface 84, display 88, storage device 92 having one or more applications 94, one or more processors 96, and network module 100.”). Thus, Danciu expressly discloses that the remote control stores instructions for interacting with multiple video services, and we determine on the current record that this supports a showing for selecting a first media player application from a plurality of media player applications.

We also find no support in Danciu for Patent Owner’s assertion that “Danciu [is] focused on a single media player: YouTube.” *See* Prelim. Resp. 31. Danciu mentions YouTube twice, both times with Hulu and Netflix. Ex. 1112, 11:31–35, 13:7–11. Furthermore, Danciu discloses that its remote control is meant to be used to control any available controlled device, as reflected in the following passage:

A user may use the remote control application of remote control 75, for example, to initiate contact with a server, such as server 24, for pairing remote control 75 to one or more controlled devices, such as controlled device 18 shown in FIG. 1. In some examples, the user may also utilize the remote control application of remote control 75 to select one or more previously paired controlled devices, and to send control messages to one or more paired controlled devices. For example, the user may interact with user interface 84 and/or display 88 to interact with and control any available controlled devices.

Id. at 10:63–11:6. Thus, on this record, the evidence suggests that “Danciu envision[s] ‘selecting’ one media player from a plurality of media players,” contrary to Patent Owner’s argument. *See* Prelim. Resp. 31.

We agree with Patent Owner that Danciu teaches a user interface on the controlled device itself through which a user can control media players. *See* Prelim. Resp. 31 (citing Ex. 1112, 2:56–60, 11:31–35). It is unsurprising that Danciu’s controlled device, such as “an Internet-connected television” (Ex. 1112, 5:45–48), would have a user interface, as TVs do. For example, Danciu explains that “user interface 120 may also include a detachable or otherwise independent device, such as a *traditional remote control device* having a keypad, a keyboard, a mouse, a roller ball, buttons, or other devices that allow a user to interact with controlled device 18.” Ex. 1112, 11:25–29 (emphasis added). Danciu further explains that “[a] user may utilize user interface 120 to control media content being presented by controlled device 118 (e.g., audio or video content).” *Id.* at 11:29–31. We see nothing in Danciu that would eliminate any native controls of a controlled device. Rather, Danciu is directed to a “Network-Based Remote Control” for the controlled device, as the title implies. *See id.*, code (54). Thus, Danciu’s teaching of a user interface on the controlled device itself by which a user can control different media players does not take away from Danciu’s disclosed network-based remote control, which also provides this capability, as discussed above.

In view of the foregoing, Petitioner’s arguments and evidence show that Danciu alone teaches “selecting a first media player application” as recited in claim 1.

ii. Danciu and Mahajan

Petitioner argues that “[i]n Danciu-Mahajan, the system selects the first type of media playing application from the plurality of media playing application types based on the data source and the capabilities of the client, as taught by Mahajan.” Pet. 34 (citing Ex. 1114 ¶ 50). Petitioner asserts that “[o]nce a command is received, those commands ‘are associated with platform specific commands,’” and “[t]he system thus selects the first type of media playing application (e.g., Dshow operating on the client) in response to receiving the commands in the received set of messages.” *Id.* (citing Ex. 1114 ¶¶ 37–43, 59–63, Figs. 1, 3, 5). Petitioner further asserts that “[t]he commands are parsed, at least in part, based on determining that the media platform of the client supports a media format associated with the piece of content.” *Id.* (citing Ex. 1114 ¶ 50).

Patent Owner responds that “the *first format* must be media-player specific (as opposed to generic or universal) in order for the selection to be ‘based on’ that format because a generic or universal format would not indicate any specific media player.” Prelim. Resp. 22. Patent Owner argues that “Mahajan describes a *two-part* server-client architecture where *the client* receives generic commands [and converts them] into media platform-specific commands (the *first format*).” *Id.* According to Patent Owner, that the “translation or conversion . . . is performed by Mahajan’s client, not the server,” means “Mahajan does not disclose any message received *from the server* that meets the limitations of the *first message* of the claimed invention.” *Id.* at 26; *see also id.* at 27 (“Mahajan performs two separate translations (*i.e.*, conversions). Even so, using Petitioner’s contentions, the first step translates *to* a ‘universal command,’ so it cannot then *select[] a*

first media player application from a plurality of media player applications based at least in part on the first format of the first message.”).

We disagree with Patent Owner. Claim 1 requires “selecting a first media player application . . . based at least in part on the first format of the first message.” Petitioner proposes combining Danciu and Mahajan such that “Danciu’s remote control would translate commands associated with a first type of media playing application to a generic format, [and] transmit them to the controlled device, which would translate them to a command associated with a second type of media playing application for execution.” Pet. 31. In other words, Danciu’s controlled device would select a media player application according to a media-player specific command that would have been translated from a generic command. Because the media-player specific command would have been translated from the generic command, the selection of a media player application according to the media-player specific command would be “based at least in part” on the generic command.

Thus, we are persuaded that Petitioner’s proposed combination of Danciu and Mahajan teaches “selecting a first media player application” as recited in claim 1 regardless of where the final command translation occurs.

iii. Danciu, Mahajan, and Calvert

Petitioner additionally argues that Calvert discloses “select[ing] between a plurality of media players based on messages referencing a piece of content,” and Petitioner relies on this to address “the first media player application being selected to play a first piece of content referenced in the received first message.” Pet. 34; *see also id.* at 35–38 (citing Ex. 1111

¶¶ 20–21, 24–27, 30–44, Figs. 1–4, 6). Petitioner argues that, based on Calvert’s teachings, a person of ordinary skill in the art

would have understood that a media playing application, such as an application running on controlled device, could include multiple media players and that which media player to use for a particular item of content could be determined based on information included in a message regarding the content from the remote control to the controlled device.

Id. at 37 (citing Ex. 1102 ¶ 164). Petitioner argues that a person of ordinary skill in the art would have used “Calvert’s teachings to support multiple media players and select between them in order to provide more options for playing back content.” *Id.* (citing Ex. 1102 ¶ 164).

Patent Owner responds that “Calvert does not rectify the deficiencies of Danciu and Mahajan.” Prelim. Resp. 35. According to Patent Owner, Petitioner’s reliance on Calvert “does not suggest, nor could it, that Calvert teaches converting a command from a *second format* to a *first format* before the playback device receives the command and uses the *first format* to select an appropriate media player.” *Id.* Patent Owner does not address Petitioner’s contentions based on Calvert. *See id.* at 20, 34–35.

We have reviewed Petitioner’s unrebutted evidence and contentions based on Calvert, and we find them persuasive on this record. For example, Calvert discloses a content adapter that processes “media service data,” which includes information “indicating the format of the media service, the corresponding playback application 608, [and] output requirements of the media service.” Ex. 1111 ¶ 42 (cited by Pet. 36). On this record, we determine that this disclosure teaches “the first media player application being selected to play a first piece of content referenced in the received first message.” Additionally, we find persuasive Petitioner’s proffered reasoning

for applying the teachings of Calvert to the proposed combination of Danciu and Mahajan, namely, to provide more options for playing back content. *See* Pet. 37.

e. controlling how the selected first media player application plays the referenced first piece of content

Claim 1 recites “controlling how the selected first media player application plays the referenced first piece of content based on a first command of the at least one command in the first format having been included in the received first message.” For this limitation, Petitioner asserts that “Danciu teaches that, in response to commands, ‘[p]rocessor 120 then executes the video or web browser application and causes display 124 to display content to the user.’” Pet. 39 (citing Ex. 1112, 13:4–32, 5:29–37, 5:64–6:2, 7:17–29, 16:55–67, 17:21–43). Petitioner adds that, “in view of Mahajan, those commands comprise commands for the first type of media player application that are executed by the receiving device.” *Id.* (citing Ex. 1114 ¶¶ 14, 21–22, 37–40, 47–50, 53, 63).

Patent Owner does not dispute these contentions. *See generally* Prelim. Resp.

On this record, we find Petitioner’s contentions persuasive. Danciu teaches,

[S]erver 24 receives a message from remote control 14 having a remote control identifier and control information (220). . . . [T]he message may contain control information intended to alter the operation of one or more controlled devices 18 (e.g., stop playback, begin next payback item, etc.). After receiving the message from remote control 14, server 24 retrieves a controlled device identifier that identifies one or more controlled devices 18 intended to receive the control information (224). . . . Server 24

then transmits a message to the intended recipients (one or more controlled devices 18) of the control information (228).

Ex. 1112, 17:21–37 (cited by Pet. 39). Additionally, Mahajan teaches that its “client can convert the generic commands into commands that are specific to a platform supported by the client,” and that “[t]he client’s platform can then process the commands to achieve the desired effect (i.e., play, pause, stop, etc.) on the client device.” Ex. 1114 ¶ 14 (cited by Pet. 39). Thus, Petitioner’s proposed combination of Danciu and Mahajan teaches “controlling how the selected first media player application plays the referenced first piece of content” as recited in claim 1.

3. *Summary*

As noted above, the compelling merits standard is met when “the evidence, if unrebutted in trial, would plainly lead to a conclusion that one or more claims are unpatentable by a preponderance of the evidence.”

Guidance Memo 4. Our precedent provides that a challenge can only meet this standard “if it is highly likely that the petitioner would prevail with respect to at least one challenged claim.” *OpenSky*, Paper 102 at 49.

Based on Petitioner’s persuasive arguments and evidence for claim 1, discussed above in view of Patent Owner’s contrary arguments, we determine that it is highly likely that Petitioner would prevail in challenging claim 1. We also determine that it is highly likely that Petitioner would prevail in challenging claims 12 and 17, which recite similar limitations as claim 1. Our determinations “should not be taken as a signal to the ultimate conclusion after trial.” *See OpenSky*, Paper 102 at 50.

Having determined that the Petition meets the compelling merits standard for at least one claim, we now address the parties' remaining disputes to provide guidance for the trial.

E. Challenge Based on Aldrey and Mahajan

Petitioner asserts that claims 1–20 would have been obvious over Aldrey and Mahajan. Pet. 58–85. Patent Owner argues that Petitioner's challenge based on Aldrey and Mahajan is deficient for the same reasons as discussed above for the challenges based on Danciu, and we refer to our discussion of those arguments above. *See* Prelim. Resp. 35–36.

Patent Owner also argues that this challenge is deficient because Petitioner “fails to establish a reason for combining the cited teachings of Aldrey and Mahajan in order to achieve the claimed invention.” Prelim. Resp. 36 (citing Pet. 67). We disagree.

Petitioner relies on Mahajan “[t]o any extent that Aldrey fails to teach or suggest at least one command in a first format, and at least one command in a second format.” Pet. 64. In that regard, Petitioner argues that “Mahajan teaches implementation details regarding transmitting commands from a computing device (e.g., [Aldrey's] end terminal) to a client (e.g., [Aldrey's] STB).” *Id.* Petitioner asserts that Mahajan's “RTS Media Abstraction module of the client . . . converts the commands received by the client . . . from Mahajan's server.” *Id.* at 65 (citing Ex. 1114 ¶¶ 37–43, 63, Figs. 1, 3, 5). As noted above in the discussion regarding the Danciu challenges, Petitioner summarizes Mahajan's relevant disclosure as follows: “1) commands for a type of media playing application on the server are received at Mahajan's server, 2) the commands are translated into a universal

command, 3) the universal command is transmitted, 4) the client re-translates the universal command, and 5) the new specific command is executed.” *Id.* at 28–29 (citing Ex. 1114 ¶¶ 35–36, Figs. 1, 2). According to Petitioner, “a [person of ordinary skill in the art] would have understood that Aldrey’s end terminal, which may be a portable device such as a cell phone, would likely employ different applications than Aldrey’s STB,” thus motivating a person of ordinary skill in the art “to apply Mahajan’s teachings of command conversion.” *Id.* at 68 (citing Ex. 1115 ¶¶ 23–26; Ex. 1102 ¶ 266). Petitioner adds that Mahajan teaches using a distributed computing environment, and that “it would have been obvious to a [person of ordinary skill in the art] that one or more RTS Media Abstraction Modules could operate at a server, such as in [Aldrey’s] Service Provider Network 103.” *Id.* at 66–67.

Patent Owner responds that Petitioner’s contention about locating command translation at the server is insufficient because it merely asserts that the abstraction modules *could* operate at a server without providing a reason that a person of ordinary skill in the art *would* have made the modification. Prelim. Resp. 36–37 (citing Pet. 67–77, 71).

Although Petitioner asserts that Mahajan teaches command conversion at the client, Petitioner’s contentions about locating the command translation module at the server are “[b]ased on Mahajan’s express teachings that its system can operate in a distributed environment.” Pet. 66–67 (citing Ex. 1114 ¶¶ 18, 58, 78; Ex. 1102 ¶ 264). Whether or not such reasoning is persuasive is an issue that will be resolved on a full trial record. We note that Mahajan explains that “[i]n a distributed computing environment, program modules may be located in both local and remote

memory storage devices.” Ex. 1114 ¶ 18. On the record before us, we find this disclosure provides some support for Petitioner’s position that “it would have been obvious to a [person of ordinary skill in the art] that one or more RTS Media Abstraction Modules could operate at a server, such as in [Aldrey’s] Service Provider Network 103.” *See* Pet. 66–67 (citing Ex. 1114 ¶¶ 18, 22–23, 51, 58, 78; Ex. 1102 ¶ 264).

Further, we note that Petitioner explains that it relies on Mahajan for “implementation details regarding transmitting commands from a computing device (e.g., [Aldrey’s] end terminal) to a client (e.g., [Aldrey’s] STB).” Pet. 64. Petitioner further explains that an ordinarily skilled artisan would have considered applying Mahajan’s command conversion techniques in Aldrey’s system because Aldrey’s end terminal and STB “would likely employ different applications.” *Id.* at 68. In this regard, Petitioner’s proffered reasoning for combining Aldrey and Mahajan is persuasive. *See Kahn*, 441 F.3d 977 at 988; Ex. 1114 ¶¶ 22, 36 (Mahajan explaining that “includ[ing] a collaboration media abstraction layer . . . can facilitate media-related communications between the server . . . and client,” where “the client’s media platform . . . may not be the same as the server’s media platform, . . . and as such . . . may not understand the intercepted platform-specific media commands of the server”). Claim 1 is not limited to different first and second formats, so the location of the command translation module does not matter with respect to claim 1.

Additionally, that Aldrey and Mahajan both describe “system[s] wherein a user can command media on a controlled device” and that applying Mahajan’s command conversion techniques was a known way to implement the transmission of such commands is sufficient reason for

combining Aldrey and Mahajan. *See* Pet. 67–69. Petitioner need only show that Mahajan’s command conversion techniques would have been a “suitable option” for implementation in Aldrey’s system. *See Intel*, 61 F.4th at 1381. Patent Owner does not dispute that an ordinarily skilled artisan would have recognized that using Mahajan’s command conversion techniques would have supported the transmission of commands in systems like Aldrey’s system. *See generally* Prelim. Resp.

IV. CONCLUSION

For the foregoing reasons, we institute *inter partes* review of all challenged claims on all challenges raised in the Petition. *See* 37 C.F.R. 42.108(a) (“When instituting *inter partes* review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim.”). At this stage of the proceeding, we have not made a final determination with respect to the patentability of any of the challenged claims or the construction of any claim term.

V. ORDER

Accordingly, it is

ORDERED that, pursuant to 35 U.S.C. § 314(a) and 37 C.F.R. § 42.4, an *inter partes* review is hereby instituted as to claims 1–20 of the ’751 patent on all challenges raised 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 will commence on the entry date of this decision.

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