

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CHARTER COMMUNICATIONS, INC.¹, and ALTICE USA, INC.^{2, 3}
Petitioner,

v.

TOUCHSTREAM TECHNOLOGIES, INC.,
Patent Owner.

IPR2024-00322
Patent 8,356,251 B2

Before GEORGIANNA W. BRADEN, MATTHEW S. MEYERS, and
AARON W. MOORE, *Administrative Patent Judges*.

BRADEN, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining Some Challenged Claims Unpatentable
Denying Patent Owner's Motion to Strike
35 U.S.C. § 318(a)

¹ Charter Communications, Inc. ("Charter"), which filed a petition in IPR2024-01231, has been joined as a party to this proceeding. *See* Paper 25.

² Altice USA, Inc. ("Altice"), which filed a petition in IPR2024-01262, has been joined as a party to this proceeding. *See* Paper 28.

³ Comcast Cable Communications, LLC ("Comcast") filed the original petition in this proceeding but terminated its participation following settlement with Touchstream Technologies, Inc. *See* Paper 45.

I. INTRODUCTION

In this *inter partes* review, Charter and Altice (collectively “Petitioner”) challenge the patentability of claims 1–26 of U.S. Patent No. 8,356,251 B1 (“the ’251 patent,” Ex. 1101), which is assigned to Touchstream Technologies, Inc. (“Patent Owner”).

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision, issued pursuant to 35 U.S.C. § 318(a), addresses issues and arguments raised during the trial in this *inter partes* review. For the reasons discussed below, we determine Petitioner has proven by a preponderance of the evidence that claims 22–26 of the ’251 patent are unpatentable, but has failed to prove that claims 1–21 are unpatentable. *See* 35 U.S.C. § 316(e) (2018) (“In an *inter partes* review instituted under this chapter, the petitioner shall have the burden of proving a proposition of unpatentability by a preponderance of the evidence.”).

A. Procedural History

Comcast filed the original Petition (Paper 1, “Pet.”) challenging claims 1–26 of the ’251 patent on the following basis:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–26	103(a) ⁴	Danciu, ⁵ Mahajan ⁶
1–26	103(a)	Danciu, Mahajan, Calvert ⁷

⁴ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284 (2011), amended 35 U.S.C. §§ 102 and 103, effective March 16, 2013. The application for the ’251 patent was filed before this date, and Petitioner applies pre-AIA §§ 102 and 103. Ex. 1101, code (22); *see* Pet. 4, 9, 11, 13 (asserting references are prior art under pre-AIA §§ 102(b), (e)).

⁵ US 9,490,998 B1, filed Mar. 7, 2011, issued Nov. 8, 2016 (Ex. 1112).

⁶ US 2009/0248802 A1, published Oct. 1, 2009 (Ex. 1114).

⁷ US 2004/0078812 A1, published Apr. 22, 2004 (Ex. 1111).

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–26	103(a)	Aldrey, ⁸ Mahajan

Pet. 16–17. Patent Owner filed a Preliminary Response. Paper 9. With Board authorization (Ex. 3001), Petitioner filed a Preliminary Reply (Paper 11) to the Preliminary Response, and Patent Owner filed a Preliminary Sur-reply (Paper 12). Trial was instituted on the asserted grounds of unpatentability. Paper 13 (“Inst. Dec.”), 36. After institution, Patent Owner sought, but was denied, Director Review of the Institution Decision. Paper 21, 2. Thereafter, Charter Communications, Inc. and Altice USA, Inc. were joined as petitioners to this proceeding based on a petition and a motion for joinder in IPR2024-01231 and IPR2024-01262, respectively. Papers 25, 28. Original Petitioner Comcast settled with Patent Owner and filed a Joint Motion to Terminate, which was granted. Papers 38, 39, 45.

During the trial, Patent Owner filed a Response (Paper 21, “PO Resp.”), Petitioner filed a Reply (Paper 27, “Pet. Reply”), and Patent Owner filed a Sur-reply (Paper 36, “PO Sur-reply”).

Patent Owner also filed a motion to strike allegedly improper arguments and evidence. Paper 34. Petitioner opposed the motion (Paper 37).

An oral hearing was held on April 29, 2025, a transcript of which appears in the record. Paper 46 (“Tr.”).

Petitioner relies on testimony from David B. Lett. Exs. 1102, 1198. Patent Owner relies on testimony from Stephen B. Wicker, Ph.D. Ex. 2025.

⁸ US 2009/0172757 A1, published July 2, 2009 (Ex. 1115).

The parties have entered into the record deposition transcripts of these declarants. Exs. 2026 (Lett Deposition I); 2027 (Lett Deposition II); Ex. 1197 (Wicker Deposition).

B. Related Matters

As required by 37 C.F.R. § 42.8(b)(2), the parties identify various related matters, including *Touchstream Technologies, Inc. v. Altice USA, Inc., et al.*, 2-24-cv-03186, and *Touchstream Technologies, Inc. v. Charter Communications, Inc., et al.*, 2:23-cv-00059-JRG (EDTX). Paper 4 at 1; Paper 25, 2; Paper 28, 2; *see* IPR2024-01231, Paper 2 at x; IPR2024-01262, Paper 2 at ix–x.

C. Real Parties in Interest

Petitioner identifies itself, Charter Communications, Inc., Charter Communications Operating, LLC, Time Warner Cable Enterprises LLC, Spectrum Management Holding Company, LLC, Spectrum Gulf Coast, LLC, Charter Communications, LLC, Altice USA, Inc., Cequel Communications, LLC, CSC Holdings, LLC, and Friendship Cable of Texas, Inc. as the real parties in interest. Paper 25, 2; Paper 28, 2; *see* IPR2024-01231, Paper 2 at x; IPR2024-01262, Paper 2 at ix. Patent Owner identifies itself as the real party in interest. Paper 8 at 1.

D. '251 Patent and Illustrative Claims

The '251 patent discloses a “system for presenting and controlling content on a display device [that] includes a network, a server system coupled to the network and comprising one or more servers, a display device coupled to the network and having a display, and a personal computing device.” Ex. 1101, code (57). One embodiment of the '251 patent is shown in Figure 1, reproduced below

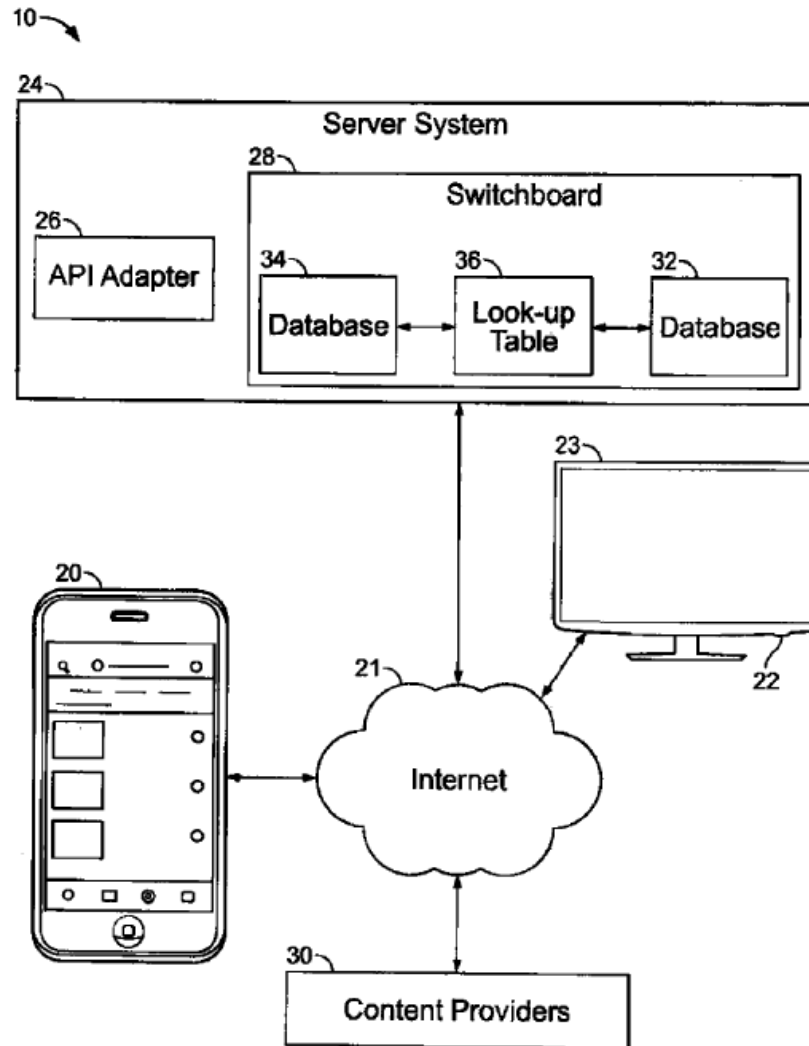


FIG. 1

Figure 1, above, is a block diagram of system 10, which facilitates a connection between two or more devices 20, 22 connected through the Internet 21. Ex. 1101, 2:41–42, 2:66–3:1. The '251 patent explains

The connection is designed to be made by a first device (e.g., a personal computing device) 20 that acts as a controller and a second device (e.g., a television set 22 with a display 23) that acts as a receiver to play content selected by a user of the first device and to respond to commands that originate at the personal computing device. The personal computing device 20 is operable to display an application or web site that contains information and links to content providers 30 on the Internet 21.

Id. at 3:1–9. According to the '251 patent, when a user makes a selection on personal computing device 20 to play particular content on display 23, a signal is sent through Internet 21 to server 24. Then, the '251 patent discloses that a corresponding command signal is passed to television set 22, which acts on a transmission code contained within the signal and performs specified commands. *Id.* at 3:11–18. “The transmission code associated with this command signal instructs the television set 22 to load a new media player (if needed) over the Internet and to load the specified video file to be played on the display 23.” *Id.* at 3:29–33. The '251 patent explains that system 10 allows personal computing device 20 to be used to select different content to be played on remote display 23 even if different media players are required for the different content, and it allows a user to control how the content is displayed (e.g., play, pause, stop, rewind, fast forward, etc.). *Id.* at 3:33–38.

In another embodiment of the '251 patent, it is explained that commands in transmission codes may be different than the command codes used in various types of media player used for content playback. Ex. 1101, 5:54–57. Therefore, the '251 patent discloses using a universal adaptor (or API Adaptor 26 in Figure 1) to interpret and convert a universal command (such as play, pause, etc.) into a specific command recognized by the media player. *Id.* at 5:58–62. According to the '251 patent, every time a signal is received from mobile device 20, API adapter 26 in system 10 checks and identifies the specific media player that is being requested. *Id.* at 5:62–64. Based on this information, system 10 loads the correct set of application programming interfaces (APIs) and converts incoming commands into commands recognized by the media player. The '251 patent discloses using a look-up table, such as the one illustrated in Figure 5, reproduced below.

26

Universal API Adapter		
Universal Command	MediaPlayerID	Specific Player Command
New Video	YouTube	yt_loadVideo
	Ted.com	getVideo
	Vimeo	loadNewVideo
Pause	YouTube	yt_pauseVideo
	Ted.com	pauseVideo
	Vimeo	pause

FIG. 5

Figure 5, above, is a table illustrating examples of entries in a universal API adapter. Ex. 1101, 2:48–49. As shown in Figure 5, the '251 patent discloses examples of a command conversion including one for a universal command “New Video,” where universal adapter 26 provides the corresponding command for each of several specific media players (e.g., “yt_loadVideo” for You Tube). *Id.* at 6:7–18.

Claims 1 and 22 of the '251 patent are reproduced below.

1. A machine-implemented method of controlling presentation of video content on a display device that loads any one of a plurality of different media players, the method comprising:

assigning, by a server system, a synchronization code to the display device;

receiving, in the server system, a message from a personal computing device that is separate from the server system and separate from the display device, wherein the message includes the synchronization code;

storing, by the server system, a record establishing an association between the personal computing device and the display device based on the synchronization code;

receiving, in the server system, one or more signals from the personal computing device, the one or more signals

specifying a video file to be acted upon and identifying a particular media player for playing the video content, the one or more signals further including a universal playback control command for controlling playing of the video content on the display device by the particular media player,

converting, by the server system, the universal playback control command into corresponding programming code to control playing of the video content on the display device by the particular media player, wherein converting the universal playback control command includes selecting from among a plurality of specific commands, each of which represents a corresponding playback control command for a respective media player; and

storing, in a database associated with the server system, information for transmission to or retrieval by the display device, wherein the information specifies the video file to be acted upon, identifies the particular media player for playing the video content, and includes the corresponding programming code to control playing of the video content on the display device by the particular media player in accordance with the universal playback control command.

Ex. 1101, 11:22–60.

22. An automated machine-implemented method of presenting video content on a display device that loads any one of a plurality of different media player, the method comprising:

displaying, by the display device, a synchronization code that was assigned to the display device by a server system, the server system subsequently storing, based on a message from a personal computing device that is separate from the server system and the display device, an association between the display device and the personal computing device, the message from the personal computing device including the synchronization code;

retrieving, by the display device from the server system, first information that specifies a first video file to be acted upon, that identifies a first media player for playing the first video file, and that indicates corresponding programming code to

control playing of the first video file on the display device by the first media player in accordance with a first playback control command, wherein the server system previously received, from the personal computing device, one or more signals specifying the first video file, identifying the first media player and including the first playback control command;

obtaining, by the display device, over the Internet the first media player for playing the first video file;

loading the first media player in the display device;

executing the first playback control command with respect to the first video file using the first media player;

subsequently retrieving, by the display device from the server system, second information that specifies a second video file to be acted upon, that identifies a second media player different from the first media player for playing the second video file, and that indicates corresponding programming code to control playing of the second video file on the display device by the second media player in accordance with a second playback control command, wherein the server system previously received, from the personal computing device, one or more signals specifying the second video file, identifying the second media player and including the second playback control command;

obtaining, by the display device, over the Internet the second media player for playing the second video file;

loading the second media player in the display device; and

executing the second playback control command with respect to the second video file using the second media player.

Ex. 1101, 13:48–14:39.

II. ANALYSIS

A. *Principles of Law*

“In an IPR, 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 Patent Owner. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (discussing the burden of proof in *inter partes* review).

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). 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 ordinary skill in the art; and (4) any secondary considerations, if in evidence.⁹ *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17–18 (1966).

B. *Level of Ordinary Skill in the Art*

Petitioner argues that a person of ordinary skill in the art “would have had a degree in computer or electrical engineering, computer science, information systems, or a similar discipline, along with three-to-four years

⁹ Patent Owner has not introduced secondary considerations evidence.

of experience with the design and/or implementation of network-based content delivery systems, such as video-on-demand cable systems and Internet video streaming.” Pet. 18–19 (citing Ex. 1102 ¶¶ 30–32).

Patent Owner contends that a person of ordinary skill in the art of the ’251 patent would have had: (1) the equivalent of a four-year, B.S. degree from an accredited institution in computer science, computer engineering or an equivalent field; (2) approximately two years of professional experience with Internet-based video delivery systems; and (3) working proficiency with network architecture, including Internet-hosted server-client systems, and with computer programming. PO Resp. 21 (citing Ex. 2025 ¶¶ 24–25). Patent Owner’s declarant, Dr. Wicker, testifies that the parties’ definitions are only “slightly different,” and that if Dr. Wicker were to adopt Petitioner’s definition, that would not change any of his opinions. Ex. 2025 ¶ 24.

Because the parties’ definitions of a person of ordinary skill in the art only “slightly differ,” we accept the assessment offered by Petitioner, which appears consistent with the ’251 patent and the asserted prior art. Regardless of which definition is applied, our analysis and decision would not change.

C. Claim Construction

Both parties propose construing the claim term “media player” because it was construed in a related *inter partes* review proceeding as well as in a district court case. Pet. 19; PO Resp. 21. According to Patent Owner, construing “media player” to mean “software for playing media” would be consistent with the construction applied in both related proceedings. PO Resp. 21. Petitioner agrees, noting that the term “media player” “refers to software and not to a hardware device.” Pet. 19 (citing Ex. 1164, 13).

For our patentability analysis, we apply the construction of “media player” used by both parties, and we need not engage in any further claim construction because there are no claim construction disputes that bear on the issues before us. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

D. Alleged Obviousness of Claims 1–26 in View of Danciu and Mahajan or Danciu, Mahajan, and Calvert

Petitioner asserts that claims 1–26 would have been obvious over the combined teachings of Danciu and Mahajan and also over the combined teachings of Danciu, Mahajan, and Calvert. Pet. 17, 20–59. Patent Owner opposes. PO Resp. 23–36, 45–50. For reasons that follow, we determine Petitioner has shown by a preponderance of the evidence that challenged claims 22–26 are unpatentable under 35 U.S.C. § 103(a), but has failed to show by a preponderance of the evidence that challenged claims 1–21 are unpatentable.

1. Overview of the Prior Art

a. Danciu (Ex. 1112)

Danciu, titled “Network-Based Remote Control,” “is directed to techniques for exchanging information between a networked device, such as a network-enabled television, and [a] web-enabled device, such as a remote control, via a network service (e.g., a ‘cloud service’).” Ex. 1112, code (54), 1:39–44. Danciu discloses that a “web-enabled cellular phone” may be used as a remote control. *Id.* at 5:1–2. One embodiment of Danciu is shown in Figure 1, reproduced below.

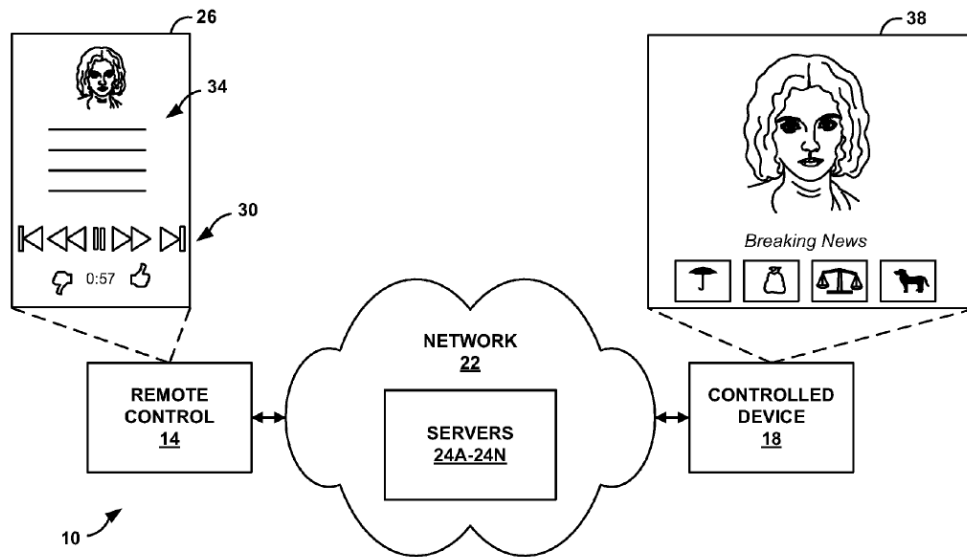


FIG. 1

Figure 1, above, is a block diagram illustrating networked environment 10 with remote control 14 and controlled device 18. Ex. 1112, 2:44–47, 4:58–61. Danciu discloses that network 22 is connected to remote control 14 and controlled device 18 via wired and/or wireless links and facilitates an exchange of data between the devices. *Id.* at 6:16–33, 6:50–52. Danciu further discloses that network 22 may assign each remote control and each controlled device a unique identifier so that when pairing devices, network 22 can use the unique identifier associated with each device to route communication signals properly. *Id.* at 4:4–8, 16:24–27.

Danciu discloses that remote control 14 includes a user interface 26 that can present information to a user. *Id.* at 5:29–31. In one embodiment of Danciu, user interface 26 displays controls 30 and information 34 associated with content being played on controlled device 18. *Id.* at 5:31–33. Danciu discloses that controls 30 can include, for example, fast forward, reverse, skip ahead or back, play, stop, move to new content, etc. *Id.* at 5:33–37.

According to Danciu, “[r]emote control 14 also transmits a message to server 24 that includes a remote control identifier and control information” where the “control information may include data intended to alter the operation of controlled device 18 (e.g., stop playback of content, move to other content, etc.).” *Id.* at 16:47–54. Danciu explains that “[s]erver 24 then identifies controlled device 18 that is intended to receive the control information. *Id.* at 16:55–56. Server 24 then transmits the control information to the intended controlled device 18. Danciu discloses that server 24 can either (1) forward the control information from the message directly to one or more controlled devices 18 or (2) process and/or repackage the control information of the message into a new message. *Id.* at 16:60–65.

One embodiment of controlled device 18 is shown in Figure 4, reproduced below.

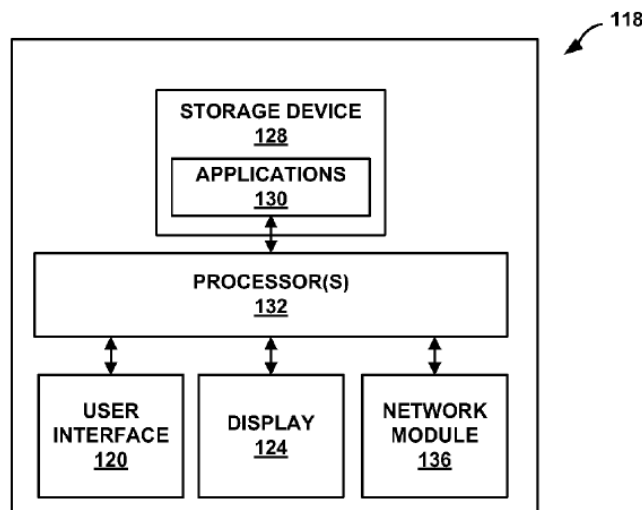


FIG. 4

Figure 4, above, is a block diagram illustrating an exemplary controlled device 118, which includes user interface 120, display 124, storage device 128, one or more processors 132, and network module 136. Ex. 1112, 11:7–13. Danciu discloses that display 124 can “present audio and/or video content from a cable service provider, a satellite television

provider, content accessible via the World Wide Web, or other content providers.” *Id.* at 11:29–31. According to Danciu, “[c]ontrolled device 118 may be used conjunction with a remote control, such as remote control 14 shown in Fig. 1.” *Id.* at 13:4–6.

b. Mahajan (Ex. 1114)

Mahajan, titled “Systems and Methods for Managing Multimedia Operations in Remote Session,” is directed to techniques for handling presentation of media in remote client-server collaboration sessions. Ex. 1114 ¶ 11. Mahajan discloses that “the client and server may or may not support the same media platforms” and that “media playback commands specific to a media platform supported on a server may be meaningless for a media platform supported on the client.” *Id.* ¶ 12. Mahajan further discloses “translat[ing] a platform specific media playback command of the server into a generic media playback command,” which “can then be translated into a platform specific media playback command for a media platform supported on the client.” *Id.* ¶ 13. According to Mahajan, in one embodiment, “the media is sent to the client for processing rather than being processed on the server.” *Id.* ¶ 14. Specifically, Mahajan discloses:

some of the present implementations can translate the server’s platform specific commands into generic media playback commands. The generic media playback commands can then be sent to the client. The client can convert the generic commands into commands that are specific to a platform supported by the client. The client’s platform can then process the commands to achieve the desired effect (i.e., play, pause, stop, etc.) on the client device.

Id.

Mahajan teaches that, in various embodiments, the invention can be practiced in distributed computing environments, where tasks are performed

on remote devices that are linked via communication networks. *Id.* ¶ 18.
One embodiment of Mahajan is shown in Figure 1, reproduced below.

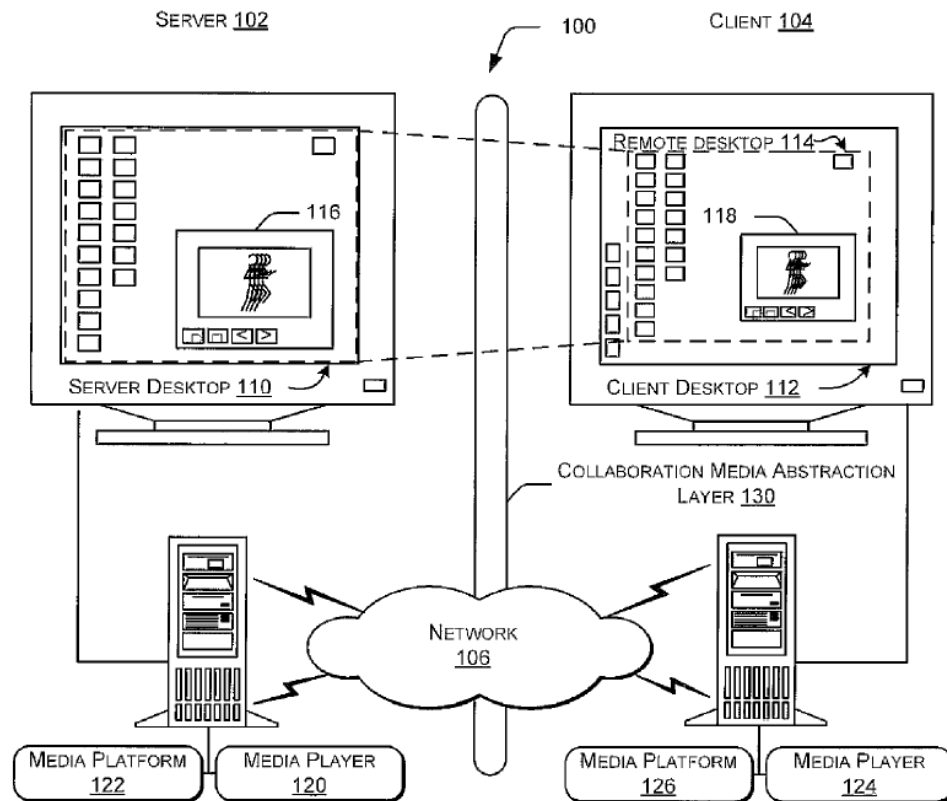


Fig. 1

Figure 1, above, is a block diagram illustrating system 100 for managing remote collaboration sessions and operating media processes during those sessions in a computer-based network. *Id.* ¶¶ 5, 15. System 100 includes server 102 coupled to client 104 via network 106. According to Mahajan, server desktop 110 can be displayed on server 104, while client desktop can be displayed on client 104. *Id.* ¶ 15.

Mahajan discloses that “[m]edia playback commands generated by the user (i.e., user-commands) at the client 104 can be forwarded to the server 102 for processing.” *Id.* ¶ 21; *see* Fig. 2 (user-commands 230 flowing from Cline 204 to server 202). Mahajan then explains that server 102 processes user-commands based on media platform 122 and generates specific media

playback commands based on user-commands that are specific to the media platform 122. *Id.* The platform specific media playback commands then can be sent to the client for execution. *Id.* ¶ 22. The client's media platform 126, however, may not understand the media playback commands specific to the server's media platform 122. *Id.* Therefore, system 100 includes collaboration media abstraction layer 130 that facilitates communications between server 102 and client 104, and can genericize the media playback commands specific to media platform 122. *Id.* The genericized media playback commands are then translated into media playback commands specific to the client's media platform 126.

In Figure 3, reproduced below, Mahajan discloses how media abstraction layer 130 functions when converting commands.

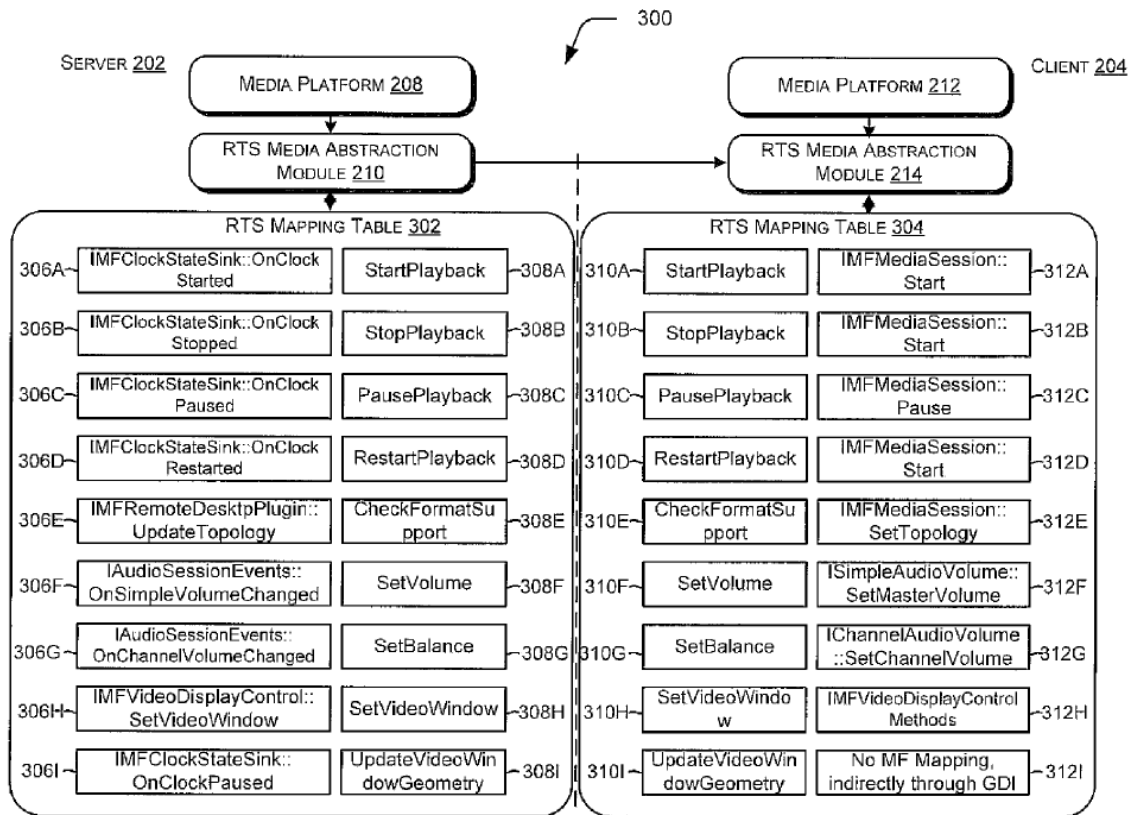


Fig. 3

Figure 3, above, is a mapping table illustrating conversions of media player commands between multimedia abstraction modules. *Id.* ¶¶ 7, 37.

Mahajan explains that RTS media abstraction modules 210, 214 at server 202 and client 204 respectively, work as a media operation abstraction by using remote terminal session (RTS) mapping tables 302, 304. *Id.* ¶ 37. For example, the server's RTS media abstraction module 210 (1) receives media commands that are specific to the server's media platform 208, and then (2) use RTS mapping table 302 to map the received media operations into generic or abstract media operations. *Id.* ¶ 38. The abstracted media operations from RTS mapping table 302 are sent to the client's RTS media abstraction module 214. *Id.* The client's RTS media abstraction module 214 uses another RTS mapping table 304 to (1) translate the abstracted media operations into media operations that are specific to the client's media platform 212, and then (2) execute the media operations. *Id.*

Mahajan discloses that by abstracting the media operations, the RTS mapping tables 302, 304 can be simpler than other potential solutions. *Id.*

¶ 42. Mahajan states

For example, the server RTS mapping table 302 may not need to take into account all the possible media platforms that can be employed on the client 204. In other words, the server's media table, such as RTS mapping table 302 can be independent of the client's media platform 212 (i.e., the server's media table does not need to be configured based upon the client's media platform configuration)

Id.

Mahajan further discloses that “the server's RTS mapping table 302 may not need to be updated as new media platforms are developed that could be employed on the client 204” because “server RTS mapping table 302 can translate media operations, such as operations 306A-306I specific to

whatever media platform(s) exists on the server 202 to the corresponding abstract or generic media operations, such 308A-308I.” *Id.* ¶ 42. Mahajan further discloses that one of the benefits of its invention is that “client RTS mapping table 304 can simply translate from generic media operations 310A-310I to media operations specific to the media platform(s) 212 operating on the client 204.” *Id.*

We discuss additional pertinent details of the references below.

2. *Analysis of Independent Claims 1 and 11 in view of Danciu and Mahajan*

Independent claims 1 and 11 each recite limitations for controlling video content being played on a display device that loads any one of a plurality of different media players, and requires a server system that is separate from both a personal computing device and a display device. Ex. 1101, 11:22–60, 12:30–13:2. Petitioner provides arguments and evidence regarding each recited limitation of claims 1 and 11. Pet. 17, 20–54. Patent Owner disputes whether (1) the combined teachings of Danciu and Mahajan would have rendered obvious the limitation requiring the server system to convert a universal playback control command into a corresponding programming code that controls the playing of the video content of a particular media player, (2) Mahajan teaches the “wherein clause”¹⁰ of the claims, and/or (3) an ordinarily skilled artisan would have combined the teachings of Danciu with Mahajan to achieve the claimed

¹⁰ The “wherein clause” recites: “wherein converting the universal playback control command includes selecting from among a plurality of specific commands, each of which represents a corresponding playback control command for a respective media player.” See Ex. 1101, 11:46–51, 12:56–60.

invention. Pet. 17, 20–59; PO Resp. 23–36, 45–50. Therefore, our analysis will focus on the parties’ arguments and evidence for these particular issues.

Petitioner relies on Mahajan to teach translating between commands sent from a server to a client. Pet. 39–42 (citing Ex. 1114 ¶¶ 18, 22–23, 37–43, 51, 58, 63, 78, Figs. 3, 5; Ex. 1102 ¶¶ 179–184). Petitioner argues that Mahajan’s “RTS Media Abstraction module of the client . . . converts the commands received by the client . . . from the server.” Pet. 40 (citing Ex. 1114 ¶¶ 37–43, 63, Figs. 3, 5; Ex. 1102 ¶ 180). 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.” Pet. 29 (citing Ex. 1114 ¶¶ 35–36, Figs. 1, 2).

Patent Owner contends, and we agree, that command conversion at the client does not teach converting by the server, as recited in claims 1 and 11. *See* PO Resp. 24–31; *see also* Ex. 1114 ¶ 14 (“the media is sent to the client for processing rather than being processed on the server” and “[t]he client can convert the generic commands into commands that are specific to a platform supported by the client”).

Although Petitioner concedes that Mahajan discloses command conversion at the client, Petitioner asserts that Mahajan’s “teachings are not strictly limited to a server-client implementation” but can be used in 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 Servers 24A–24N” in Danciu. Pet. 41 (citing Ex. 1114 ¶¶ 18, 22–23, 51, 58, 78; Ex. 1102

¶ 182); Reply 10 (citing Ex. 1198 ¶¶ 6–7). According to Petitioner, a person of ordinary skill in the art “would have been motivated to implement Danciu’s system, comprising a remote control sending commands to a controlled device via a server, using known techniques for sending commands for media playback between a server and a client, such as is taught by Mahajan.” Pet. 31–32; Reply 4.

Petitioner also argues that Mahajan confuses its nomenclature and reverses what is called a client and what is called a server. Tr. 13:17–19. Petitioner specifically argues that Mahajan’s RTS Media Abstraction Module 214 is akin functionally to the server in Danciu, because server 202 of Mahajan’s Figure 2 commands a remote collaboration session hosted on what Mahajan calls the client. *See* Pet. 31–32, 39–42; Tr. 13:20–22. So, according to Petitioner, Mahajan “sort of reverses the two in that sense, but it is absolutely the local device [that] translates from specific to universal” and then “sends it to [RTS Media Abstraction Module 214] . . . that translates it from universal to specific to the player that is resonate on the remote device . . .” Tr. 13:22–14:4.

Petitioner then contends that the location of Mahajan’s conversion is not dispositive because Petitioner is not relying on the architecture of Mahajan. Reply 3–4; Tr. 13:18–19. Instead, Petitioner uses Danciu’s system architecture to implement the generalized teachings of Mahajan. *Id.* Petitioner argues that it is not trying to locate Mahajan’s server-command teachings into the server of Danciu. Reply 6–7. Rather, according to Petitioner, “Mahajan’s teachings regarding the generation of genericized/universal playback commands are implemented in Danciu’s remote control, not Danciu’s server.” *Id.* at 7 (citing Pet. 32). Petitioner further explains that Mahajan is used to teach the concept of conversion

between genericized/universal commands and platform specific media playback commands regardless of location within a server or client device.¹¹ Reply 5; Tr. 14:5–11 (“But to be clear, Your Honor, we were not relying on the architecture of Mahajan. We were relying on its teaching which is, essentially, specific to universal, universal to specific, the way that it would apply these techniques to a remote device that might have a different media player.”).

Patent Owner contends that Petitioner’s obviousness arguments fail because Mahajan’s “techniques for sending commands for media playback between a server and a client” do not teach or suggest that any device can be used for converting a universal playback control command into corresponding programming code for a particular media player on a different device, as Petitioner proposes. PO Sur-reply 3 (citing Reply 4 (quoting Pet., 31–32), 6). Patent Owner argues that merely using Mahajan’s Client RTS Media Abstraction Module 214 even “as [] taught by Mahajan” on Danciu’s servers would not meet the converting limitations. *Id.* at 4 (citing Reply, 4, 6; Resp. 31–33). As Patent Owner notes, the translations of a “client” module on Danciu’s server system would produce only specific commands for a “Media Platform” on that server system. *Id.* (citing Ex. 1114 ¶¶ 38, 41 (describing operations of the Client RTS Media Abstraction Module 214); Ex. 2025 ¶ 37 (“[T]he device ultimately using the commands is the same device performing the conversion.”)).

Patent Owner also argues Mahajan’s teachings of specific command to generic command conversion at the server that are then sent to the client

¹¹ The change in Petitioner’s argument from the Petition to the Reply is the subject of Patent Owner’s Motion to Strike. *See* Paper 34.

for conversion from generic to platform specific commands cannot be extrapolated into a simple teaching of a generic command into a specific command all at the server. PO Sur-reply 3–5; Tr. 29:3–20, 32:23–33:18. Patent Owner explains that nothing in Mahajan suggests that a Client RTS Abstraction Module on a server would translate generic commands into specific commands for the Media Platform of another device that is neither a “server” nor a “client.” PO Sur-reply 5 (citing Reply 10–13). According to Patent Owner, “[t]his is the wherein clause from the claims of the ’251.” Tr. 44:14–17; *see* Reply 7–8. Patent Owner notes that, in the “wherein clause, the claims require the server to select a specific command from among a plurality of specific commands for different media players.” Tr. 44:14–17. Patent Owner then asserts that Petitioner misinterprets Mahajan’s disclosure regarding QuickTime and Ogg, because neither Mahajan nor Danciu teach or suggest selecting among a plurality of different commands for different media players. *Id.* at 44:24–45:3.

Patent Owner further contests Petitioner’s position regarding Mahajan’s “distributed computing environment[.]” PO Sur-reply 5. According to Patent Owner, such an environment in Mahajan is one in which “tasks are performed by remote processing devices that are linked through a communications network.” *Id.* (citing Ex. 1114 ¶ 18). Patent Owner asserts that in every one of Mahajan’s examples of such environments, each device operates as a client, a server, or both. *See id.*

Patent Owner also contends that Mahajan’s “distributed computing environments” are not a reason to combine it with Danciu, because Petitioner merely asserts that the modules *could* operate to do the conversions at a server without providing a reason that a person of ordinary skill in the art *would* have made the modification. PO Resp. 40 (citing

Pet. 41; Reply 10–11, 14; Ex. 1102 ¶ 182) (emphasis in original); PO Sur-reply 8–9. Patent Owner argues that Petitioner never articulates a reason for implementing Mahajan’s Client RTS Media Abstraction Module 214 on Danciu’s servers. PO Sur-reply 10 (citing Pet. 31–33).

Indeed, Patent Owner asserts that the only mention of Danciu’s servers during Petitioner’s discussion is in a high-level description of “Danciu’s system” as “a remote control sending commands to a controlled device via a server.” *Id.* (citing Pet. 31). According to Patent Owner, the entire point of Petitioner’s discussion is implementing translation of command in Danciu’s remote control. *Id.* (citing Pet. 32). But Patent Owner insists that Petitioner’s rationale merely identifies a reason for using “Mahajan’s teachings of command conversion” in Danciu, while failing “to explain why a person of ordinary skill in the art would have combined elements from specific references in the way the claimed invention does.” PO Sur-reply 11 (citing *TQ Delta, LLC v. Cisco Sys., Inc.*, 942 F.3d 1352, 1362 (Fed. Cir. 2019); Pet. 32; Ex. 1102 ¶ 162).

Based on the entire trial record, we are unconvinced by Petitioner’s attempts to extrapolate Mahajan’s specific teachings and specific architecture into a general principle such that specific commands are converted to universal commands and then universal commands are converted to specific commands regardless of the location of the process within a distributed system. *See* Tr. 14:5–11. Rather, we agree with Patent Owner that Petitioner’s extrapolation arguments are unsupported by Mahajan.

We understand Petitioner argues that Mahajan’s “distributed computing environments” would have rendered it obvious to alter the location where command conversions occur. Pet. 41; Reply 10–11, 14.

And, using the disclosure regarding “distributed computing environments,” Mr. Lett testifies that Mahajan “allows for its server media abstraction module to be located in a processing device that may not typically be labeled a ‘server,’ such as remote control 14 of Danciu.” Ex. 1198 ¶ 9 (citing Ex. 1102 ¶ 162; Ex. 1114 ¶ 17). Yet, both Petitioner and Mr. Lett fail to explain how or why a person of ordinary skill in the art would take the distributed nature allowed by Mahajan and completely flip its teachings to put a client or remote device process on a server device. Mr. Lett further fails to explain how or why one would want to move Mahajan’s abstraction layer in the first place.

Although Mahajan teaches that its system can operate in a distributed environment, based on the explicit disclosure of Mahajan and its examples, we do not understand “distributed” to mean that (i) the server processes can occur on client devices and (ii) that client processes can occur on server devices. *See* Ex. 1114 ¶¶ 51, 58, 60, 61, 76, 77. Rather, we understand “distributed computing environments” to encompass “an environment where tasks are performed by remote processing devices that are linked through a communications network” because that is what is taught in Mahajan. *Id.* ¶ 58. Our understanding is supported by the testimony of Mr. Lett. *See* Ex. 1198 ¶ 8 (reciting the explicit disclosure in Mahajan).

It is clear, based on the plain reading of Mahajan, that the distributed environment indicates that server 202 and client 204 could be located in different locations, but would be linked through a communications network where user-command 230 flows from client 204 to server 202. *See* Ex. 1114 ¶ 35, Fig. 2. At no point does Mahajan teach or even suggest that user-commands 230 would flow from server 202 to client 204 as proposed by Petitioner. Additionally, we find insufficient reason in the record to explain

why an ordinarily skill artisan would make such a change. Indeed, Petitioner’s argument appears to be based completely on hindsight bias created in view of the challenged claims. Therefore, we find little credibility in Mr. Lett’s testimony regarding the change or in Petitioner’s position.

To the contrary, we find Dr. Wicker’s testimony to be credible because it is supported by the disclosures in both Mahajan and Danciu. Specifically, we agree with Dr. Wicker, who testified that Mahajan does not describe an abstraction layer as ever being on “a server in the network.” *See* Ex.1197, 18:21–24. We also find Dr. Wicker’s testimony credible when he explained that even if Mahajan’s abstraction layer were implemented on a server in a network as posited by Petitioner, it still would not result in the claim mapping proposed by Petitioner. *See* Ex. 2025 ¶ 45 (Dr. Wicker: “[T]he two abstraction modules work together to create a ‘collaboration media abstraction layer 130.’”) (citing Ex. 1114 ¶ 22; Ex. 2027, 39:6–40:12, 44:10–19 (Mr. Lett reading from and agreeing with paragraph 45 of Dr. Wicker’s Declaration)).

Regarding the Petition’s reasoning to combine the teachings of Danciu with Mahajan, Petitioner argues that a “POSITA would have understood that Mahajan’s server command teachings could be implemented on Danciu’s remote control” and “would have been motivated to apply Mahajan’s teachings of command conversion because a POSITA 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.” Pet. 32 (citing Ex. 1112, 5:1–6:13; Ex. 1114 ¶ 17; Ex. 1102 ¶ 162); Tr. 15:3–12. Although an ordinarily skilled artisan may have combined the teachings of the prior art, we do not agree with Petitioner’s

position because (1) the combination as proposed by Petitioner does not meet every recited claim limitation, and (2) Petitioner again fails to explain why an ordinarily skilled artisan would have altered the location of Mahajan's conversion process from the client abstraction layer module to server abstraction layer module.

Petitioner must articulate a *reason why* a person of ordinary skill in the art would combine the prior art references to achieve the claimed invention. *In re NuVasive*, 842 F.3d 1376, 1382 (Fed. 2016); *Metalcraft of Mayville, Inc. v. The Toro Company*, 848 F.3d 1358, 1366 (Fed. Cir. 2017) (“[I]t is insufficient to simply conclude the [prior art] combination would have been obvious without identifying any reason why a person of skill in the art would have made the combination.”); *see Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015) (“obviousness concerns whether a skilled artisan not only *could have made* but *would have been motivated to make* the combinations or modifications of prior art to arrive at the claimed invention”). Conclusory statements alone, even those provided by a declarant, are inadequate to demonstrate a rationale for why a person of ordinary skill in the art would combine the teachings from prior art references. *NuVasive*, 842 F.3d at 1383. Instead, Petitioner's arguments must be supported by a “reasoned explanation.” *Id.* (citing *In re Lee*, 277 F.3d 1338, 1342, 1345 (Fed. Cir. 2002)). We understand that a person of ordinary skill is a person of ordinary creativity, not an automaton, but “[w]ithout any explanation as to how or why the references would be combined to arrive at the claimed invention, we are left with only hindsight bias that *KSR* warns against.” *Metalcraft*, 848 F.3d at 1367 (“[T]he obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation,” we also recognize that we

cannot allow hindsight bias to be the thread that stitches together prior art patches into something that is the claimed invention.” (quoting *KSR*, 550 U.S. at 420–21)).

As discussed above, based on the entire trial record, we find that the recited claim limitation requiring command conversion at the server is not taught by the combined teachings of Danciu and Mahajan. Additionally, we find insufficient evidence in the record to support a conclusion by a preponderance of the evidence that a person of ordinary skill in the art at the critical time would have had reason to move Mahajan’s command conversion from the client device to the server as required by claims 1 and 11.

Accordingly, having considered the full trial record, and for the reasons discussed above, we conclude that Petitioner has failed to meet its burden to demonstrate that claims 1 and 11 would have been obvious to a person of ordinary skill in the art based on the combined teachings of Danciu and Mahajan.

3. Analysis of Dependent Claims 2–10 and 12–21 in view of Danciu and Mahajan

Other than its arguments for independent claims 1 and 11, which we address above in § II.D.2, the parties do not raise additional arguments for dependent claims 2–10 and 12–21. Pet. 43–54; PO Resp. 23–43. We note that the burden of proof remains on Petitioner to demonstrate unpatentability. *See Dynamic Drinkware*, 800 F.3d at 1378. We have reviewed the parties’ arguments and evidence, summarized above, and, for the same reasons explained previously, we agree with Patent Owner. Therefore, having considered the full record developed during the trial, we conclude Petitioner has failed to meet its burden to demonstrate that

dependent claims 2–10 and 12–21 would have been obvious to a person of ordinary skill in the art based on the combined teachings of Danciu and Mahajan.

4. *Analysis of Independent Claim 22 in view of Danciu and Mahajan*

Independent claim 22 recites limitations for a method for controlling video content being played on a display device that requires at least two different media players and a display device that retrieves information from a server system. Ex. 1101, 13:48–14:39. Petitioner provides arguments and evidence regarding each recited limitation of claim 22. Pet. 17, 54–58. Patent Owner disputes whether the combined teachings of Danciu and Mahajan would have rendered obvious the limitations requiring (1) “retrieving” of information by a display device that identifies a media player, or (2) the messages identifying a media player. PO Resp. 43–44. Patent Owner further disputes whether an ordinarily skilled artisan would have combined the teachings of Danciu and Mahajan to achieve the claimed method. *Id.* Therefore, our analysis will focus on the parties’ arguments and evidence for these particular issues.

a) *“retrieving information that identifies a media player”*

Claim 22 recites

retrieving, by the display device from the server system, first information that specifies a first video file to be acted upon, that identifies a first media player for playing the first video file, and that indicates corresponding programming code to control playing of the first video file on the display device by the first media player in accordance with a first playback control command, wherein the server system previously received, from the personal computing device, one or more signals specifying the first video file, identifying the first media player and including the first playback control command.

Ex. 1101, 14:5–15.

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. 25–28, 38–39, 55–56; Reply 18–23. Referring to Figure 1, Danciu discloses 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.” Ex. 1112, 5:29–33; *see* Pet. 25. Exemplary controls include “fast forward, reverse, skip ahead or back, play, stop, move to new content, etc.” Ex. 1112, 5:33–37. Danciu also discloses that “controlled device 18 receives one or more messages from remote control 14 via network 22 and servers 24 to alter the content that is rendered on display 38 of controlled device 18.” Ex. 1112, 5:64–6:2, 10:45–53; *see* Pet. 25. According to Petitioner, “Danciu teaches that the servers direct the messages in a session from the remote control to the controlled device. Pet. 26 (citing Ex. 1112, 6:50–60, 7:17–29, 8:11–34, 10:45–53, 15:42–58, 16:24–17:12). “For example, server 24 may query a database of stored identification numbers to determine which controlled device is associated with the session that includes the remote control identifier. Server then transmits the control information to the intended controlled device 18 (210).” Ex. 1112, 16:56–61; Ex. 1102 ¶ 152.

Patent Owner contends Danciu does not disclose “retrieving” information as required by the claims. PO Resp. 45; Sur-Reply 18; Tr. 46:12–20. According to Patent Owner, “retrieving” requires more than just initiating communication and then receiving that information. PO Sur-reply 19. Patent Owner insists that “claim 22 imposes a requirement of the display device taking an active step to retrieve the information from the server, as opposed to the server initiating the communication. PO Resp. 45 (citing Ex. 2025 ¶ 62).

Petitioner, however, responds that an ordinarily skilled artisan would have understood that the message on the server system would not be accessed directly by the display device, so the server system must transmit the information to the display device. Reply 18 (citing Ex. 1198 ¶¶ 23–24). Petitioner’s argument is based on the ’251 Patent’s teaching regarding “retrieving,” where it states “[o]nce the message is retrieved by or sent to the display device 22, the display device proceeds to execute the command.” *Id.* (citing Ex. 1101, 6:60–62). Petitioner further argues that Danciu describes that network module 136 may communicate with the servers using hypertext transfer protocol (HTTP), which was known to implement a “get” command for retrieving data by a client from a server, and then providing the received data to the processor/application. *Id.* at 19 (citing Ex. 1112, 12:50–13:3; Ex. 1197, 33:17–35:11; Ex. 1198 ¶ 25); Ex. 1197, 33:17–35:11; Tr. 27:5–9.

Based on Danciu’s disclosures, we agree with Petitioner. Specifically, we find Danciu teaches that the remote control sends messages through the servers to control the controlled device. *See* Pet. 25–27 (discussing routing messages from remote control to controlled device via servers). We also find Danciu teaches commands that specify a video file to be acted upon because they “alter the content that is rendered on display 38 of controlled device 18.” Ex. 1112, 5:64–6:2. Danciu discloses that content includes video. Ex. 1112, 13:13–15 (“Processor 120 then executes the video or web browser application and causes display 124 to display content to the user.”), *cited in* Pet. 38–39.

We credit the testimony of Mr. Lett, because his testimony is consistent with and supported by Danciu’s disclosure and that of the ’251 patent. Mr. Lett explains that an ordinarily skilled artisan would have understood that information (*i.e.*, the message) on the ’251 patent’s server

system would not be accessible directly by the display device, and the server system must transmit the information to the display device. Ex. 1198

¶¶ 23–24. Specifically, Mr. Lett testifies as follows:

The sole description regarding “retrieving” in the ’251 specification is “[o]nce the message is retrieved by or sent to the display device 22, the display device proceeds to execute the command.” Ex. 1101, 6:60-62. It is my opinion that a POSITA would have understood that while a first computing device may retrieve information from its own memory by finding and selecting it, the first device may not do so with information residing on a second device. In that case, the second device (i.e., where the data resides) must transmit the information to the first device.

Id. ¶ 24. Mr. Lett further testifies to the use of the HTTP “get” command in Danciu. *Id.* ¶ 25. Mr. Lett explains that “a POSITA would have understood, that network module 136 (i.e., of Danciu’s display device) may communicate with the servers using hypertext transfer protocol (HTTP).”

Id. According to Mr. Lett, “it was well-known that HTTP implemented, for example, ‘GET’ commands for requesting data by a client from a server, and then providing the received data to the processor/application.” *Id.*

Mr. Lett’s testimony also consistent with Dr. Wicker’s deposition testimony regarding the HTTP “get” command, stating that it was well known in the art and “[o]ne would send a command that causes the retrieval in the sense that the server responds to the command by sending the requested information.” Ex. 1197, 33:17–35:11; Tr. 27:10–13.

Based on the testimony of both Mr. Lett and Dr. Wicker, and on the teachings of Danciu, we find that Danciu’s teaching of sending commands to play media files from the remote control to the controlled device via the servers would have rendered this claimed limitation obvious.

b) *“first information that . . . identifies a first media player”
and “second information that . . . identifies a second
media player.”*

Petitioner contends that Danciu teaches identifying two different media players because it discloses that the controlled device may work with various video services, including YouTube, Hulu, and Netflix. Pet. 27 (citing Ex. 1112, 5:31–33, 7:17–29, 11:34–35, 14:13–64, Fig. 1; Ex. 1102 ¶ 154). Petitioner asserts that Danciu describes that a remote-control session can be initiated before a media player is selected. Pet. 22; Reply 20; Ex. 1198 ¶ 27. According to Petitioner, Danciu describes how a remote control and controlled device may be paired through the use of a QR code, without any reference to a video application or web browser. Pet. 22; Reply 21 (citing Ex. 1112, 4:36–45, 8:23–49, 13:27–32; Ex. 1198 ¶ 28). While Danciu allows that “[a] user *may* utilize the video application of applications 130 or web browser of controlled device 118 to facilitate pairing,” Danciu also provides multiple other ways of initiating a remote-control session. Reply 21 (citing Ex. 1112, 13:16–19).

Patent Owner contends, however, that Danciu does not meet the claimed limitations because it does not contemplate swapping between media players using remote messages identifying particular media players. PO Resp. 45–46. Patent Owner acknowledges that Danciu teaches controlling the operation of YouTube, Hulu, and Netflix media players, but asserts that a remote-control session can only be initiated once a media player application has been loaded and thus that swapping media players is not possible. *Id.* at 46; Sur-Reply 20 (citing Reply 22); Tr. 47:2–12. Patent Owner argues that Danciu controls the “media players one at a time, after the controlled device initiates a session with the remote.” PO Sur-reply 20

(citing Ex. 1112, 13:16–31; PO Resp. 45–46; Ex. 2025 ¶¶ 67–69, 74–75). Indeed, according to Patent Owner, Danciu teaches using user interface 120 of the controlled device to select the media player for the controlled device to run. *Id.* at 20–21 (citing Ex. 1112, 13:11–15). Patent Owner insists that “[t]he remote control would only need to send the information identifying commands for the media player on the controlled device to ‘move to other content,’ and to use the controlled device itself to select the media player.” *Id.* at 21 (citing Ex. 2027, 100:21–101:2; Ex. 1112, 13:11–15).

We do not agree with Patent Owner because its position takes too narrow a view of Danciu’s teachings.

Danciu specifically discloses the following:

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. Storage device 92 is part of the remote control.

Ex. 1112, 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, we find that Danciu expressly discloses that the remote-control stores instructions for interacting with multiple video services, and we determine that this teaches identifying different media players. Additionally, we agree with Petitioner that Danciu provides multiple ways of initiating remote control sessions that allow for loading a video application or web browser after initiating such a session. *See, e.g.*, Ex. 1112, 4:36–45, 8:23–49, 13:27–

32. For example, Danciu states that its controlled device may be “available to be joined to a session maintained by server 24 *upon powering on* or executing a video or web browser application.” Ex. 1112, 13:19–23 (emphasis added).

Regarding this issue, we credit the testimony of Mr. Lett because it is consistent with the disclosure of Danciu. *See* Ex. 1198 ¶ 28. Dr. Wicker’s testimony, however, appears to overlook or disregard portions of Danciu that provide alternative ways for initiating remote control sessions. *See* Ex. 2025 ¶ 74. And, Dr. Wicker does not provide a sufficient explanation as to why these alternative methods were not considered in his opinion or why such methods would not allow for loading a video application or web browser after initiating a remote-control session.

Accordingly, we find by a preponderance of the evidence that Petitioner’s arguments and evidence show that Danciu alone teaches both “retrieving, by the display device from the server system, first information . . . that indicates corresponding programming code to control playing of the first video file on the display device by the first media player in accordance with a first playback control command” and “retrieving, by the display device from the server system, second information . . . that identifies a second media player different from the first media player for playing the second video file and that indicates corresponding programming code to control playing of the second video file on the display device by the second media player in accordance with a second playback control command.”

c. Rational to Combine Danciu and Mahajan Teachings

Petitioner relies on Mahajan for “implementation details for transmission of commands for controlling a client” and for converting

playback commands into programming code. Pet. 28–34, 39–42. Although claim 22 does not require conversion of a command into either a specific or universal command as recited in claims 1 and 11, Patent Owner appears to contend that “there is an argument that it’s inherent because it does discuss that a universal command is received by the server.” Tr. 46:4–7. We do not agree with Patent Owner because claim 22 does not discuss a universal command or indicate that such a command is necessary or inherent in the claim limitations.

As for transmission of commands to a client, 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.” Pet. 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.” Pet. 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 32 (citing Ex. 1112, 5:1–6:13; Ex. 1102 ¶ 162).

Patent Owner’s arguments against the combination of Danciu and Mahajan focus on the location of the command translation and that the

combination fails to teach the conversion required at the server in claims 1 and 11. PO Resp. 34–42. These arguments do not apply to claim 22, which recites no such requirement. In addressing claim 1, Petitioner argues that it would have been obvious for Mahajan’s client command translation to occur at the server (Pet. 41), and we addressed this argument previously. But even assuming that in the combination the client re-translates the command and executes the command, the command that is transmitted from the server to the client would still appear to “indicate[] corresponding programming code,” as recited in claim 22, by virtue of the command execution.

Thus, we agree with Petitioner’s contentions based on the combination of Danciu and Mahajan for this limitation regardless of where the final command translation occurs.

5. Analysis of Claims 1–26 in view of Danciu, Mahajan, and Calvert

Petitioner contends that to extent that Patent Owner argues that Danciu-Mahajan does not teach “identifying a particular media player for playing the video content,” it would have been obvious “to select between a plurality of media players based on messages referencing a piece of content as demonstrated by Calvert.” Pet. 34 (citing Ex. 1102 ¶ 167).

Patent Owner argues that, for claims 1–21, Calvert does not teach the required “converting” step and notes that Petitioner does not rely on Calvert for the “converting” step. PO Resp. 36. We agree with Patent Owner, and find that Calvert does not remedy the failings of Danciu and Mahajan in regards to the “converting” step of claims 1–21. *See supra*, Section II.D.2. Therefore, and for the same reasons discussed previously, we find Petitioner has failed to show by a preponderance of the evidence that challenged claims 1–21 are unpatentable.

For claims 22–26, Patent Owner argues Calvert does not teach “taking an active step to retrieve the information from the server” (PO Resp. 45) or “identifying the first media player” (*id.* at 40). As explained previously, we do not agree with Patent Owner’s expansive read of “retrieving” and we find that, even if it were to require an “active step,” such a step is met by Danciu without the need of Calvert. *See supra*, Section II.D.4. Additionally, as discussed previously, Danciu expressly discloses that the remote-control stores instructions for interacting with multiple video services, and we determine that this teaches identifying different media players. Furthermore, we agree with Petitioner that Danciu provides multiple ways of initiating remote control sessions that allow for loading a video application or web browser after initiating such a session. *See e.g.*, Ex. 1112, 4:36–45, 8:23–49, 13:27–32. Therefore, we find that Danciu teaches or at least suggests “identifying the first media player” as recited by the challenged claims.

Therefore, we determine Petitioner has shown by a preponderance of the evidence that the challenged claims 22–26 are unpatentable under 35 U.S.C. § 103(a).

E. Alleged Obviousness of Claims 1–26 in View of Aldrey and Mahajan

Petitioner asserts that claims 1–26 would have been obvious over the combined teachings of Aldrey and Mahajan. Pet. 17, 59–87. Patent Owner opposes. PO Resp. 23–36, 45–50. For reasons that follow, we determine Petitioner has shown by a preponderance of the evidence that the challenged claims 22–26 are unpatentable under 35 U.S.C. § 103(a), but has failed to show by a preponderance of the evidence that the challenged claims 1–21 are unpatentable.

1. Overview of the Prior Art

a. Aldrey (Ex. 1115)

Aldrey is directed to a system that integrates television and other computing devices with new user interface technology so as to “seamlessly provide[] efficient, convenient access to system controls” and for “broadening the scope of devices available to consumers for remote interaction” with set-top boxes (“STBs”) found on conventional televisions. Ex. 1115 ¶¶ 1, 18, 11–15, Fig. 1. One embodiment of Aldrey is shown in Figure 1, reproduced below.

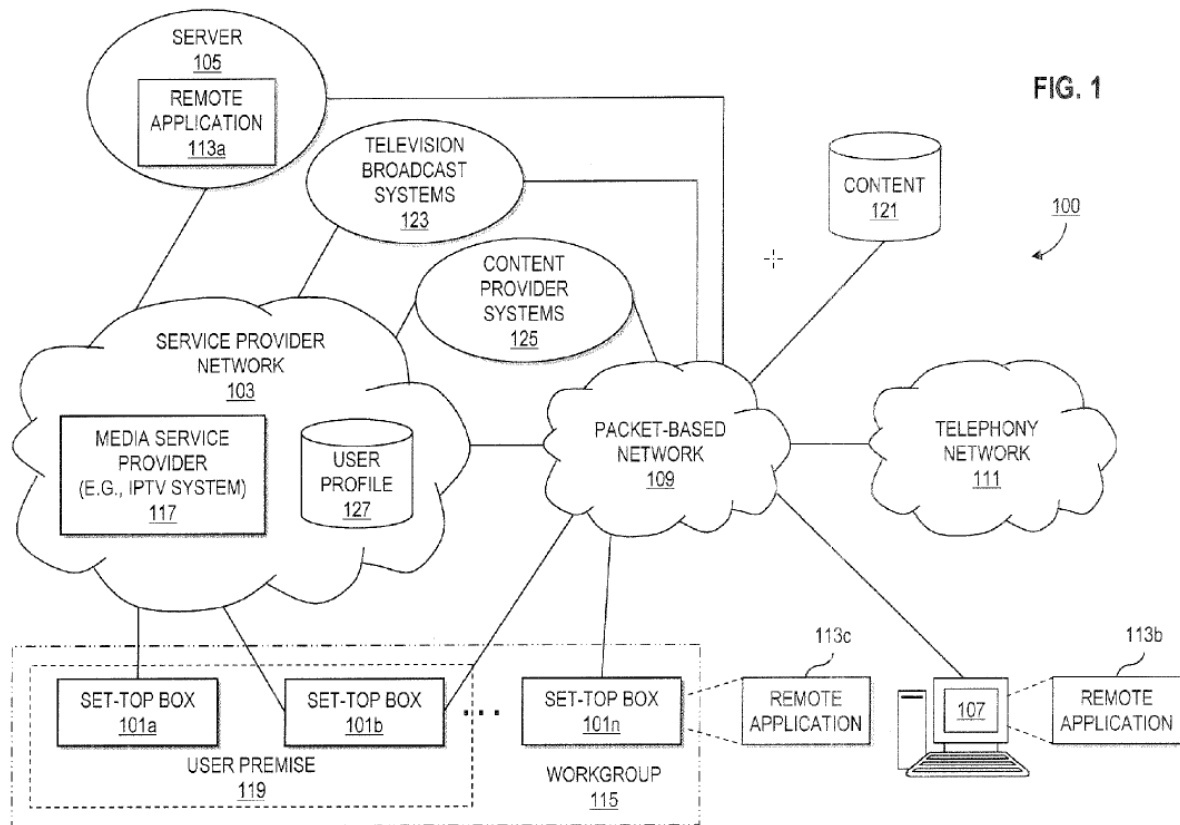
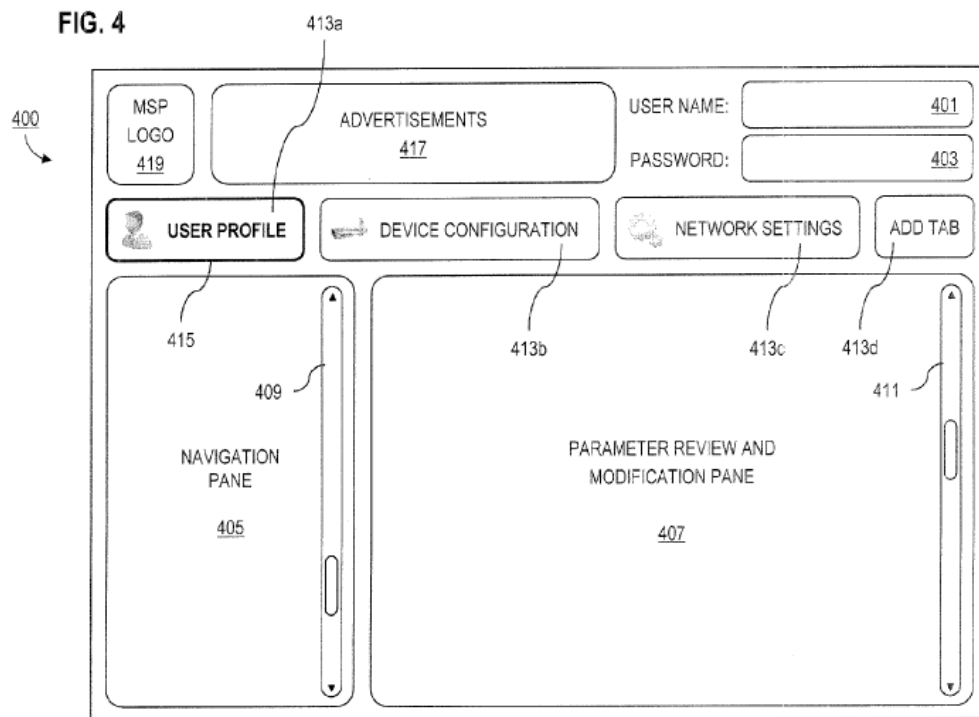


Figure 1, above, is a diagram of system 100, which is capable of providing remote set-top box management where a user at end terminal 107 may be able to remotely access one or more STBs 101a-101n in order to control them. *Id.* ¶¶ 13, 18. Aldrey discloses STB 101 connected via media service

provider (MSP) 117 to a remote application running on end terminal 107.

Id. ¶¶ 18–22, 25, Fig. 1.

In another embodiment of Aldrey, an individual may use a web-based application in order to access the STB. Ex. 1115 ¶¶ 67–72. In this embodiment, user interface 400 is provided, wherein an authenticated subscriber may directly review and modify user profile information and/or network settings (collectively referred to as subscription service options and configurations). *Id.* ¶ 67. An example of this embodiment is shown in Figure 4, reproduced below.



Using the interface, “an individual may generate a command for controlling a plurality of STBs 101a-101n, and transmit that command to the STBs 101a-101n to configure the devices 101a-101n.” Ex. 1115 ¶¶ 19, 73–74, Fig. 4. In some embodiments of Aldrey, one or more remote applications can be used to configure a plurality of STBs 101a-101n, either in real-time or periodically. *Id.* ¶ 72, Figs. 5a, 5b. Flowcharts of processes for

remote management of one or more set-top boxes are shown in Figures 5a and 5b (*id.* ¶ 72), reproduced below

FIG. 5a

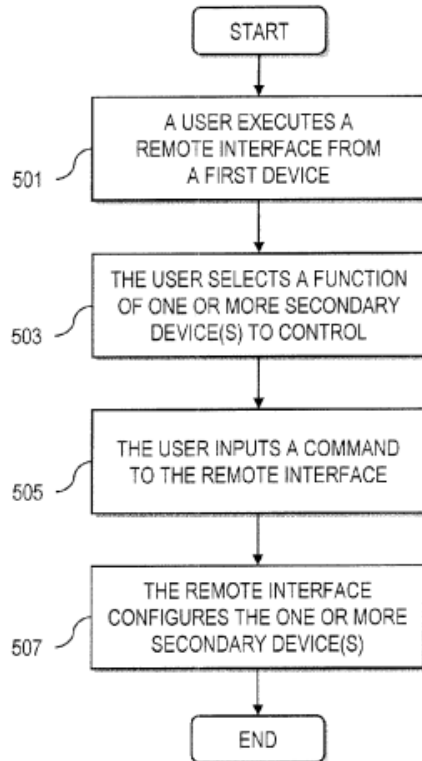


FIG. 5b

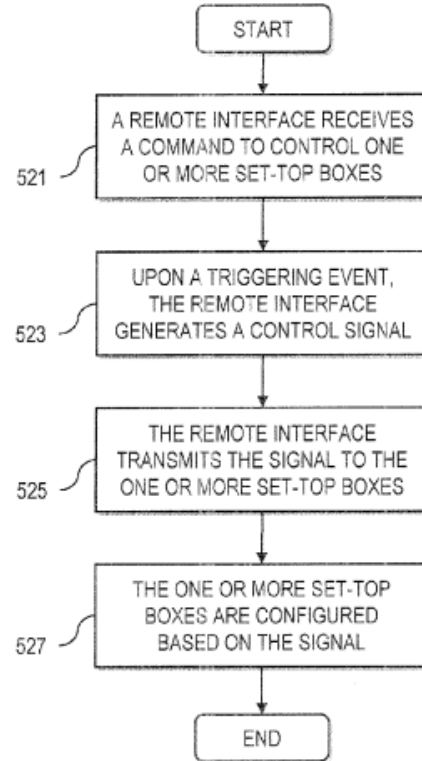


Figure 5a illustrates an exemplary process for real-time, remote management of one or more STBs from an end terminal perspective. *Id.* ¶ 73. Figure 5b illustrates an exemplary process for scheduled remote management of one or more STBs from a remote interface(s), e.g., remote application(s), perspective(s). *Id.* ¶ 83. In certain embodiments, subscribers may implement the process of Figure 5b via remote applications via, for instance, an end terminal and/or an STB (e.g., STB 101n). *Id.* ¶ 86.

b. Mahajan (Ex. 1114)

See supra, Section II.D.1.b.

2. *Analysis of Independent Claims 1–21 in view of Aldrey and Mahajan*

Petitioner relies on Mahajan to address the required “converting” limitations recited in claims 1–21. Pet. 69–72. Petitioner specifically argues

that “[b]ased on Mahajan’s express teachings that its system can operate in a distributed environment, it would have been obvious to a POSITA that one or more RTS Media Abstraction Modules could operate at a server, such as Aldrey’s Service Provider Network 103.” *Id.* at 71–72 (citing Ex. 1114 ¶¶ 18, 58, 78; Ex. 1102 ¶ 299).

For the same reasons regarding Petitioner’s Danciu and Mahajan challenge, Patent Owner argues that, for claims 1–21, Aldrey and Mahajan does not teach the required “converting” step. PO Resp. 41–43. As noted by Patent Owner, Petitioner does not rely on Aldrey for the “converting” step. *See id.* We agree with Patent Owner, and find, for the same reasons that apply to the Danciu and Mahajan challenge, discussed in Section II.D.2. above, that Aldrey and Mahajan do not teach or suggest the “converting” step of claims 1–21. Therefore, for the same reasons discussed previously, we find Petitioner has failed to show by a preponderance of the evidence that the challenged claims 1–21 are unpatentable.

3. *Analysis of Independent Claim 22 in view of Aldrey and Mahajan*

For claims 22–26, Petitioner contends the combined teachings of Aldrey and Mahajan meet all the claim limitations. Pet. 82–87. Petitioner argues that Aldrey teaches retrieving media content from online (e.g., Internet) sources. Pet. 84 (citing Ex. 1115 ¶ 60). Petitioner further argues that Aldrey’s remote application, which can be connected via the Internet, may be loaded as an overlay on the media content in order to control the media being displayed. *Id.* (citing Ex. 1115 ¶¶ 19, 23–25, 30–31, 44–47, 52–53, 62–66). According to Petitioner, “the remote application functions as the first media player.” *Id.* (citing Ex. 1102 ¶ 360). Petitioner then relies on Mahajan for teaching “that the display device may display a webpage obtained and loaded over the Internet from a server for displaying content.”

Id. (citing Ex. 1114 ¶ 19–20; Ex. 1102 ¶ 360). Petitioner asserts that the combined teachings of Aldrey and Mahajan encompass “obtaining a media player over the Internet in order to load (e.g., install) it on the controlled device (‘the display device’)” because “[i]t would have been obvious to a POSITA that for a media player to execute and display content, it should be loaded on the device, even if temporarily in RAM. *Id.* (citing Ex. 1102 ¶ 362).

Patent Owner contends Aldrey does not teach “the display device obtaining and loading the first and second media players after those media players have been identified by the retrieved information.” PO Resp. 50–51; Sur-Reply 21–22. Patent Owner argues the combined teachings of Aldrey and Mahajan do not meet the claim limitations because “neither reference envisions the programmatic obtaining and loading of media players, and certainly not the obtaining and loading of ‘the first media player.’” PO Resp. 50 (citing Ex. 1101, 14:16–17; Ex. 2025 ¶¶ 83, 88). Patent Owner specifically argues that “Claim 22 requires more than the general idea of obtaining and loading a media player at some point in time.” *Id.* Rather, Patent Owner asserts that, per Claim 22, “the first media player is part of the first information retrieved by the display device from the server system wherein the server system previously received an identification of the media player from the personal computing device. *Id.* (citing Ex. 2025 ¶ 89).

Patent Owner explains that Aldrey’s remote application is not used for obtaining or loading a media player, because it is used for remote configuration methods. PO Resp. 51 (citing Ex. 2025 ¶¶ 84–86). According to Patent Owner, Aldrey’s remote application is a user interface by which a user can adjust configurations for an ST remotely. *Id.* (citing Ex. 2025 ¶ 85). Patent Owner disagrees with Petitioner’s declarant, Mr. Lett, who

testifies that an ordinarily skilled artisan would have known at the time that media players could be obtained and loaded. *Id.* (citing Ex. 1102 ¶ 360; Ex. 2025 ¶¶ 89–90). Patent Owner argues the Mr. Lett’s testimony is not supported by the disclosure of Aldrey because a person of ordinary skill in the art considering Aldrey at the relevant time would have understood Aldrey to teach an STB that operated with a media player that is preloaded. Patent Owner also argues that there is no reason to combine the teachings of Aldrey with Mahajan to arrive at the challenged claims. *Id.*

We do not agree with Patent Owner on this issue. Rather, we agree with Petitioner’s explanation regarding Aldrey’s remote application 209c, which can be overlaid on the display of STB 201, can function as a media player, and has software that can be loaded based on instructions from the remote application. *See* Ex. 1115 ¶¶ 14, 20, 44, 52–55, 93. We also agree with Petitioner that Aldrey describes “Internet services content (streamed audio, video, or pictographic media)” as one of the types of media content that can be displayed. *See id.* ¶¶ 20–21, 25. We credit Mr. Lett’s testimony that Aldrey’s Internet services content “would include plugin media players which would be downloaded as part of the web page or separately” because this appears consistent with Aldrey’s disclosure. *See* Ex. 1102 ¶ 360; Ex. 1197, 11:22–14:9; Ex. 1198 ¶ 34. Additionally, Petitioner appears to rely only on Aldrey for claim 22–26, except to note that Mahajan supports teaching displaying content on a display device. *See* Pet. 84 (citing Ex. 1114 ¶¶ 19–20). Thus, we are satisfied there is sufficient rationale to combine the teachings of Aldrey with that of Mahajan for these challenged claims.

Therefore, having considered the full trial record, and for the reasons discussed above, we conclude Petitioner has shown by a preponderance of

the evidence that the challenged claims 22–26 are unpatentable under 35 U.S.C. § 103(a).

III. PETITIONER’S MOTION TO STRIKE

Patent Owner filed a Motion to Strike Improper Reply Arguments and Evidence. Paper 34 (“Mot.”). Patent Owner argues that Petitioner presents a new obviousness theory for the first time in its Reply. Mot. 1. Patent Owner contends that Petitioner erroneously asserts that there was a “typographical error” in the Petition, and, according to Patent Owner, changing this “error” fundamentally changes how the Petition maps a critical claim element. *Id.* (citing Reply 8, n.2). Patent Owner argues that the “record suggests there was no error” and “[e]ven if there were, Petitioners had the opportunity to correct it sooner and chose not to do so.” *Id.*

Petitioner contends all arguments were raised originally in the Petition. Paper 37 (“Mot. Opp.”), 2. Petitioner argues that the “Petition clearly set forth its reliance on Danciu’s architecture in view of Mahajan’s teachings on conversion generally (which alone is sufficient to defeat the Motion), while also specifying the locations where Danciu would be modified in view of particular RTS media abstraction modules.” *Id.* According to Petitioner, the typographic error noted in Reply 8, n.2 merely discusses “where the genericized commands were received.” *Id.* at 3. Thus, Petitioner concludes that its arguments are not “new.” *Id.* at 5.

As discussed previously, even accepting Petitioner’s “typographical error” and its arguments regarding the location of command conversion as argued in the Petition and the Reply, we do not agree with Petitioner. Therefore, we need not determine if the alleged error constitutes a new argument.

Accordingly, we dismiss the Motion to Exclude as moot.

IV. CONCLUSION¹²

For the reasons discussed above, we determine that Petitioner has proven, by a preponderance of the evidence, that claims 22–26 of the ’251 patent are unpatentable but has failed to prove that claims 1–21 are unpatentable, as summarized in the following table:

Claim(s)	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1–26	103(a)	Danciu, Mahajan	22–26	1–21
1–26	103(a)	Danciu, Mahajan, Calvert	22–26	1–21
1–26	103(a)	Aldrey, Mahajan	22–26	1–21
Overall Outcome			22–26	1–21

¹² Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner’s attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. § 42.8(a)(3), (b)(2).

V. ORDER

Accordingly, it is

ORDERED that claims 22–26 of the '251 patent have been shown to be unpatentable;

FURTHER ORDERED that claims 1–21 of the '251 patent have not been shown to be unpatentable;

FURTHER ORDERED that Petitioner's Motion to Strike (Paper 34) is *dismissed*; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2024-00322

Patent 8,356,251 B2

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