

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HULU, LLC,
Petitioner,

v.

SITO MOBILE R&D IP, LLC and SITO MOBILE, LTD.,
Patent Owner.

IPR2021-00158
Patent 9,026,673 B2

Before JONI Y. CHANG, THOMAS L. GIANNETTI, and
KEVIN W. CHERRY, *Administrative Patent Judges*.

CHANG, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

Hulu, LLC (“Petitioner”) filed a Petition requesting an *inter partes* review (“IPR”) of claims 1–3, 5, 6, 19–21, 23, 26, 27, 30, 31, and 33 (“the challenged claims”) of U.S. Patent No. 9,026,673 B2 (Ex. 1001, “the ’673 patent”). Paper 2 (“Pet.”), 1. SITO Mobile R&D IP, LLC and SITO Mobile Ltd. (collectively, “Patent Owner”) filed a Preliminary Response (Paper 6, “Prelim. Resp.”). On April 20, 2021, we instituted the instant *inter partes* review as to all of the challenged claims for all of the grounds of unpatentability asserted in the Petition. Paper 9 (“Dec.”).

Subsequent to institution, Patent Owner filed a Response (Paper 22, “PO Resp.”) and a Sur-reply (Paper 29, “Sur-reply”). Petitioner filed a Reply (Paper 26, “Reply”). An oral hearing was held on January 13, 2022, and a transcript has been entered into the record as Paper 33 (“Tr.”).

This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a). For the reasons that follow, Petitioner has demonstrated by a preponderance of the evidence that claims 1–3, 5, 6, 19–21, 23, 26, 27, 30, 31, and 33 of the ’673 patent are unpatentable.

A. Related Matter

The parties indicate that the ’673 patent is involved in *SITO Mobile R&D IPI, LLC and SITO Mobile, Ltd. v. Hulu, LLC*, Case No. 6:20-cv-00472-ADA (W.D. Tex. 2020). Pet. 84; Paper 5, 1.

B. The '673 Patent

The '673 patent is titled “System and Method for Routing Media” and “is related to the fields of management and administration of media streaming.” Ex. 1001, code (54), 1:36–37. According to the '673 patent, the demand for digital media streaming services was increasing because digital media streaming can be used to create enhanced consumer and business services. *Id.* at 1:49–52. Figure 1 is reproduced below.

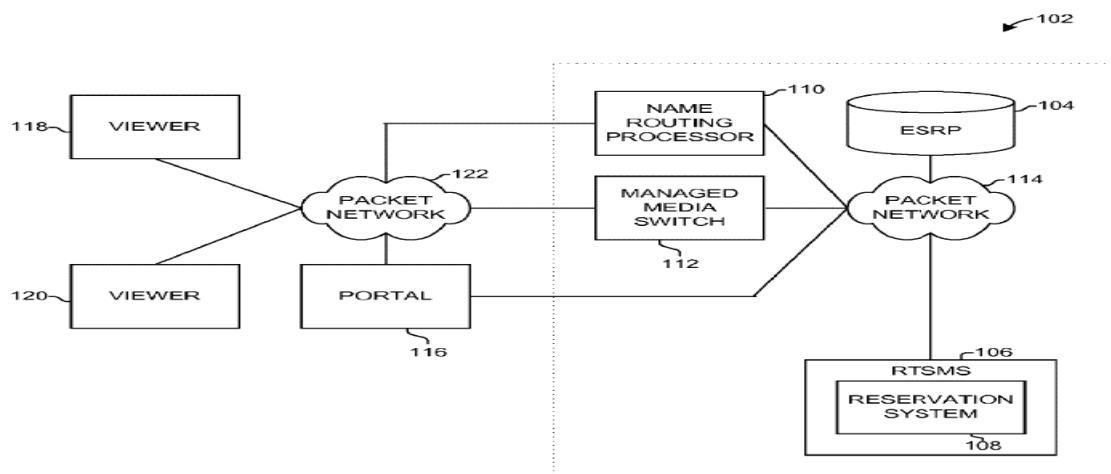


Figure 1 above depicts an exemplary embodiment of a streaming system. *Id.* at 4:55–56. Streaming system 102 comprises enhanced service routing processor (ESRP) 104, real time switch management system (RTSMS) 106, reservation system 108, name routing processor (NRP) 110, and managed media switch (MMS) 112, each of which communicates through packet network 114. *Id.* at 4:55–63. Portal 116 communicates with reservation system 108 of RTSMS 106 via packet network 114, and one or more viewers 118 and 120 may communicate with NRP 110, MMS 112, and/or portal 116 via packet network 122. *Id.* at 4:63–67.

C. Illustrative Claims

Of the challenged claims, claims 1 and 19 are independent. Claims 2, 3, 5, and 6 depend from claim 1, and claims 20, 21, 23, 26, 27, 30, 31, and 33 depend from claim 19. Claims 1 and 19 are illustrative:

1. A method comprising:

[1a] receiving, by at least one computing device via a communication network, a *request for media* from at least one communication device capable of using *instructions* received from the at least one computing device *to obtain at least one portion of the requested media* using at least one resource other than the at least one computing device;

[1b] determining, by the at least one computing device, whether the at least one portion of the requested media is available for streaming in accordance with at least one program comprising at least one media selector defining how to select at least one other media;

[1c] determining, by the at least one computing device, the at least one other media based on the at least one *media selector*;

[1d] generating, by the at least one computing device and based on one or more capabilities of the communication device, at least one *play script*, comprising:

[1d.1] (i) an identification of the at least one portion of the requested media,

[1d.2] (ii) an identification of the at least one other media,

[1d.3] (iii) a *reservation identification* associated with the request for media,

[1d.4] (iv) at least one universal resource locator (URL) associated with at least one of the identification of the at least one portion of the requested media and the identification of the at least one other media, the at least one URL including at least one identification of at least one resource other than the at least

one computing device available to facilitate streaming of at least one of the at least one portion of the requested media and the at least one other media, and

[1d.5] (v) one or more instructions for use by the communication device together with the at least one URL and the reservation identification to enable the at least one communication device to obtain the at least one portion of the requested media and the at least one other media; and

[1e] transmitting, by the at least one computing device to the communication device, the at least one play script to enable the communication device to obtain the at least one portion of the requested media and the at least one other media via the communication network using the at least one resource other than the at least one computing device.

Ex. 1001, 50:52–51:31 (emphases and bracketed matters added).

19. A media streaming management method, comprising:

[19a] receiving, by at least one hardware computing device, a *request for media* from a communication device capable of playing the requested media; and

[19b] in response to the request for media and based on one or more attributes of the communication device and one or more rules, the one or more rules being associated with the requested media and identifying how to select at least one *other media* for streaming in connection with the at least one portion of the requested media, generating and transmitting, from the at least one computing device to the communication device over a communication network, at least one *play script* comprising:

[19b.1] (i) an identification of the at least one portion of the requested media,

[19b.2] (ii) an identification of the at least one other media,

[19b.3] (iii) a *reservation identification* associated with the request for media,

[19b.4] (iv) at least one universal resource locator (URL) associated with at least one of the identification of the at least one portion of the requested media and the identification of the at least one other media, the at least one URL including at least one identification of at least one resource other than the at least one computing device available to enable streaming of the at least one portion of the requested media and the at least one other media, and

[19b.5] (v) one or more *instructions* for use, together with the at least one URL and the reservation identification, by the communication device *to obtain the at least one portion of the requested media* and the at least one other media via the communication network using the at least one resource other than the at least one computing device.

Id. at 54:7–40 (emphases and bracketed matters added).

D. Prior Art Relied Upon

Petitioner relies upon the references listed below (Pet. 10):

Name	Reference	Date	Exhibit No.
Eyal	U.S. Patent No. 6,389,467 B1	May 14, 2002	1005
Wiser	U.S. Patent No. 6,385,596 B1	May 7, 2002	1006
Madison	U.S. Patent Pub. No. 2004/0015703A1	Jan. 22, 2004	1007
Holtz	U.S. Patent No. 6,760,916 B2	Jul. 6, 2004	1008

E. Asserted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability (Pet. 10)¹:

Claims Challenged	35 U.S.C. §	References
1–3, 5–6, 19–21, 23, 26, 27, 30–31, 33	103(a)	Eyal, Wiser
1–3, 6	103(a)	Madison, Holtz

II. ANALYSIS

A. Claim Construction

In an *inter partes* review, we construe a patent claim “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).” 37 C.F.R. § 42.100(b) (2019). Under this standard, the words of a claim generally are given their “ordinary and customary meaning,” which is the meaning the term would have to a person of ordinary skill at the time of the invention, in the context of the entire patent including the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc).

In light of parties’ arguments and supporting evidence in this entire trial record, we find that it is necessary to address only the claim terms identified below. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor*

¹ For purposes of this Decision, we assume the claims at issue have an effective filing date prior to March 16, 2013, the effective date of the Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), and we apply the pre-AIA versions of 35 U.S.C. §§ 102 and 103.

Co., 868 F.3d 1013, 1017 (Fed. Cir. 2017) (noting that “we need only construe 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))).

1. “at least one portion of the requested media”

Claim 1 recites:

[1.a] receiving, by at least one computing device via a communication network, *a request for media* from at least one communication device capable of using instructions received from the at least one computing device to obtain *at least one portion of the requested media* using at least one resource other than the at least one computing device;

Ex. 1001, 50:53–59 (emphases added).

Neither party explicitly proffers a construction for the term “at least one portion of the requested media.” Nevertheless, Patent Owner takes the position that all of the challenged claims require “streaming requested media in portions.” *See, e.g.*, PO Resp. 9–12, 34–36. Through its arguments, Patent Owner implicitly construes the claim term “at least one portion of the requested media” to exclude the entirety of the “requested media” or to require that the “requested media” be broken up into portions. *Id.*; Sur-reply 1–7, 9–11. Patent Owner made similar arguments in CBM2020-00028 involving U.S. Patent No. 8,825,887 (“the ’887 patent”) that uses the same claim term and shares the same written description as the ’673 patent. Both patents derive from the same parent application. “Where multiple patents derive from the same parent application and share many common terms, we

must interpret the claims consistently across all asserted patents.”

SightSound Techs., LLC v. Apple Inc., 809 F.3d 1307, 1316 (Fed. Cir. 2015) (internal quotation marks omitted).

In the Final Written Decision for CBM2020-00028 (Paper 33, 9–13), we noted that, in the context of the ’887 patent, the plain and ordinary meaning of the term encompasses one or more portions of the “requested media,” as well as the entirety of the “requested media.” And we declined to adopt Patent Owner’s implicit claim construction because it improperly imports extraneous limitations into the claims and excludes a preferred embodiment. Notably, the same embodiment is disclosed in the ’673 patent. In that embodiment, the viewer sends a request for *each media clip* (the “requested media”) to a “computing device” and each media clip is received *in its entirety*, not broken up or received one portion at a time as Patent Owner alleges. Ex. 1001, 13:49–14:2.

For the reasons stated above and in the Final Written Decision for CBM2020-00028 (Paper 33, 9–13), we decline to adopt Patent Owner’s implicit claim construction in this proceeding.

2. “instructions”

Claim 19 requires a “play script” comprising, among other things: one or more *instructions* for use, together with the at least one URL and the reservation identification, by the communication device *to obtain the at least one portion of the requested media and the at least one other media* via the communication network using the at least one resource other than the at least one computing device.

Ex. 1001, 54:34–40 (emphases added). Claim 1 recites a similar limitation. *Id.* at 51:19–24. Claim 26 depends from claim 19 and recites “generating *the one or more instructions* for use by the communication device to include one or more instructions relating to at least one of *a media format, a media language, a media sequence, and an advertisement insertion.*” *Id.* at 55:23–27 (emphases added).

Neither party explicitly proffers a construction for the term “instructions.” Nevertheless, through its arguments, Patent Owner implicitly construes the term “instructions” as used in claims 1 and 19 to exclude instructions relating to a media format, a media sequence, or an advertisement insertion, the types of instructions recited in claim 26. PO Resp. 39–43, 58–59; Sur-reply 15–16, 22.

However, the Federal Circuit repeatedly has noted that “dependent claims can supply additional context for construing the scope of the independent claims associated with those dependent claims,” and that “[a]n independent claim impliedly embraces more subject matter than its narrower dependent claim.” *Intamin, Ltd. v. Magnetar Techs. Corp.*, 483 F.3d 1328, 1335 (Fed. Cir. 2007) (citing *Phillips*, 415 F.3d at 1314); *see also Innova/Pure Water, Inc. v. Safari Water Filtration Sys. Inc.*, 381 F.3d 111, 1123 (Fed. Cir. 2004) (“dependent claims are typically narrower”). “By definition, an independent claim is broader than a claim that depends from it, so if a dependent claim reads on a particular embodiment of the claimed invention, the corresponding independent claim must cover that embodiment as well.” *Littelfuse, Inc. v. Mersen USA EP Corp.*, No. 2021-

2013, slip op. at 7 (Fed. Cir. April 4, 2022) (citing *Baxalta Inc. v. Genentech, Inc.*, 972 F.3d 1341, 1346 (Fed. Cir. 2020) (“The district court’s construction [of the independent claim] which excludes these explicitly claimed embodiments [in the dependent claims] is inconsistent with the plain language of the claims.”)).

Here, it is undisputed that claim 26’s recitation of “the one or more instructions” refers back to claim 19’s “one or more instructions” in a play script for use by the communication device to obtain the requested media and other media. PO Resp. 48. Therefore, we decline to adopt Patent Owner’s implicit claim construction that excludes the types of instructions recited in claim 26. Rather, we determine that claims 1 and 19 embrace the types of instructions recited in claim 26—instructions related to “at least one of a media format, a media language, a media sequence, and an advertisement insertion.”

3. “play script”

Petitioner asserts that the claim term “play script” should be construed as “a list customized for the communication device containing one or more media references and instructions executable by the communication device.” Pet. 22–23. We adopted Petitioner’s construction in the Institution Decision for purposes of determining whether to institute a trial. Dec. 18–19.

After institution, Patent Owner argues that the term “play script” should be construed as “a file containing one or more media references and other information used by a communication device to obtain media.” PO Resp. 13–15. Patent Owner argues that a play script “is a file, which can be

processed by a computer to obtain media” because the claims recite that the play script contains “instructions,” not merely a list. *Id.* The difference between the parties’ constructions is not meaningful for the purposes of this Final Written Decision. As Petitioner notes, all of the “play scripts” identified by Petitioner in the prior art are files, and Patent Owner does not argue otherwise. Therefore, we need not determine which party’s construction applies, as our analysis would be the same under either party’s construction. *Nidec*, 868 F.3d at 1017.

4. “reservation”

Claim 3 recites “generating a reservation associated with the at least one play script.” Ex. 1001, 51:37–38. Petitioner asserts that the term “reservation” should be construed as “a set of instructions uniquely identifying the communication device and the play script, and reserving system resources for streaming the requested media.” Pet. 23–24. We adopted Petitioner’s construction in the Institution Decision for purposes of determining whether to institute a trial. Dec. 20. After institution, Patent Owner proposes to construe “reservation” as an “arrangement regarding reserved resources of a streaming system.” PO Resp. 16.

However, the Specification sets forth the following definition: “[a] reservation is a feature that enables the streaming system 102 to reserve system resources, such as *switches, processors, or media*, either now or in the future, to ensure a quality media experience.” Ex. 1001, 10:33–37 (emphasis added). The Federal Circuit has recognized that “the specification may reveal a special definition given to a claim term by the patentee that

differs from the meaning it would otherwise possess,” and “[i]n such cases, the inventor’s lexicography governs.” *Phillips*, 415 F.3d at 1316 (citing *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002)).

Therefore, consistent with the definition in the Specification, we construe “reservation” as “a feature that enables the streaming system . . . to *reserve system resources, such as switches, processors, or media*, either now or in the future, to ensure a quality media experience.” Ex. 1001, 10:34–37 (emphasis added). To the extent that Patent Owner argues that a reservation excludes media, we find that argument to be inconsistent with the definition in the Specification. PO Resp. 31–34, 37, 56–57.

5. “media selector”

Claim 1 recites determining whether the requested media “is available for streaming in accordance with at least one program comprising at least one media selector defining how to select at least one other media.” Ex. 1001, 50:60–64. Patent Owner proposes to construe the term “media selector” as a “functionality for selecting media that is *targeted to a user*.” PO Resp. 19 (emphasis added). Patent Owner argues that the Specification discloses that “[a] media selector is used in the presentation creation process . . . to target different media at an audience, based on audience characteristics.” *Id.* (citing Ex. 1001, 4:22–26). Petitioner argues that the claim language itself contemplates any way of choosing media, so long as it defines how to select the other media. Reply 13.

We agree with Petitioner. We only depart from the plain and ordinary meaning where the patentee has acted as his own lexicographer by clearly

setting forth a definition of the disputed claim term or where the patentee has disavowed the full scope of the claim term using clear and unmistakable statements of disclaimer. *GE Lighting Solutions, LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014). Here, Patent Owner does not assert such a definition or disclaimer exists. Patent Owner's construction would improperly import limitations from the Specification into the claims. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1346–47 (Fed. Cir. 2015) (The Federal Circuit “has repeatedly cautioned against limiting the claimed invention to preferred embodiments or specific examples in the specification.”). As such, we decline to adopt Patent Owner's construction for “media selector.” Even if we apply that construction, it would not affect our prior art analysis below because both asserted grounds teach selecting media that is targeted to a user. Thus, it is not necessary for us to construe the term further to resolve the issues. *Nidec*, 868 F.3d at 1017.

B. Principles of Law

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) objective evidence of non-obviousness.² *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

C. Level of Ordinary Skill in the Art

In determining the level of ordinary skill in the art, various factors may be considered, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (quotation marks omitted). Here, Petitioner asserts that an ordinarily skilled artisan would have had “at least a bachelor’s degree in computer science, electrical or computer engineering, or equivalent.” Pet. 18. And such an artisan also would have had “at least two years of experience in distributed systems, multimedia streaming, and various HTTP-related technologies, or an equivalent amount of relevant work or research experience,” citing to the Declaration of Henry Houh, Ph.D., for support. *Id.* at 18–19 (citing Ex. 1003 ¶¶ 57–60). Patent Owner’s declarant, Mr. Michael Adam, provides a similar assessment, but also testifies that such an artisan, alternatively, would have had “at least five years of work experience and training in the design and development of distributed network systems and/or multimedia streaming.” Ex. 2012 ¶ 28. Neither party points out any

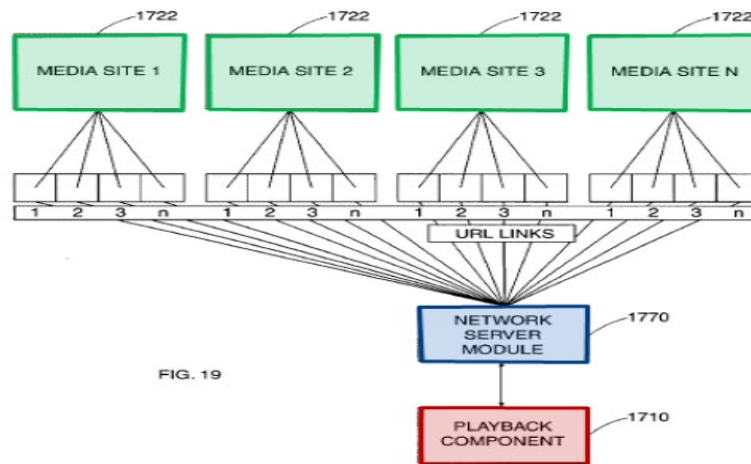
² Neither party presents evidence or arguments regarding objective evidence of non-obviousness in the instant proceeding.

meaningful difference between the parties' assessments. We apply Patent Owner's assessment on the level of ordinary skill in the art. However, our analysis would be the same under either party's description.

D. Summary of the Asserted Prior Art References

1. Eyal (Exhibit 1005)

Eyal is titled "Streaming Media Search and Continuous Playback System of Media Resources Located by Multiple Network Addresses." Ex. 1005, code (54). Eyal discloses "a computer system that enables a continuous streaming media playback from a distribution of sites available over a network such as the Internet." *Id.* at 1:17–19. Figure 19 of Eyal is reproduced below (color annotations added by Petitioner (Pet. 25)).



Annotated Figure 19 of Eyal above illustrates a system that allows media streaming "from multiple sites on the Internet based on personalized criteria set forth by users." *Id.* at 10:1–3, 32:43–44. User terminal 1710 (red), via network server module 1770 (blue), has access to network media sites 1722 (green) that provide access to media. *Id.* at 32:43–46. Each of

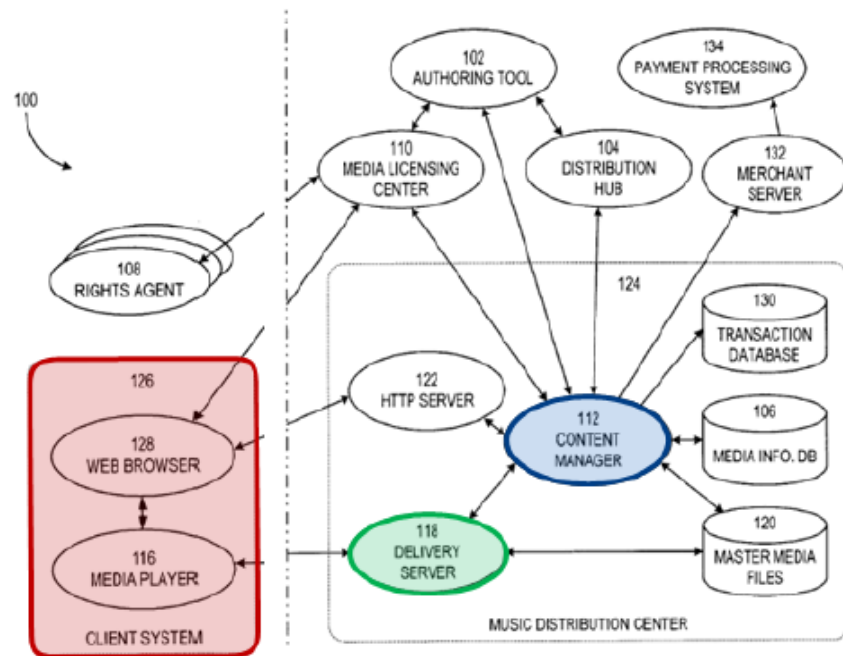
media sites 1722 has one or more links to media web resources, which are represented by URLs 1–N. *Id.* at 32:47–48. Media sites 1772 correspond to different locations on the Internet. *Id.* at 32:54–55.

After receiving a request for media, a play-list generator creates a play-list that includes a plurality of media links and sends it to the requesting device. *Id.* at 4:47–55, 9:13–21, 27:33–35. Each media link in the play-list locates a media file on the network. *Id.* The play-list may provide instructions to the playback device and include a variety of metadata, such as duration, media URL, source website, media type, clip broadcast quality, and image size for video. *Id.* at 12:37–63, 27:35–37. Other media, including targeted commercials, “may be inserted into the play-lists in various locations between media clips.” *Id.* at 13:1–8.

To playback the requested media, “[t]he user terminal then accesses the URL and loads the web resource[s] associated with that media link into a streaming media playback component on the user terminal.” *Id.* at 27:37–40. A play-list that has a plurality of media links allows the media playback component to play media continuously from numerous sites on a network. *Id.* at 27:47–60.

2. Wiser (Exhibit 1006)

Wiser discloses a system and methods for online distribution of digital media data that allows users to select, preview, and download digital media over the Internet. Ex. 1006, 1:7–9, 3:5–10. Figures 1A and 1B of Wiser are reproduced below (annotated and combined by Petitioner (Pet. 27)).



Annotated Figures 1A and 1B above illustrate a system that “separates the management and administration of the purchase of the media content from the delivery of that media content to purchasers.” *Id.* at 6:29–31. The system includes content manager 112, delivery server 118, and at least one client system 126. Content manager 112 handles “the administration and management of all purchases and other transactions” and delivery server 118 provides “the delivery of the purchased media content.” *Id.* at 6:32–36. Client system 126 includes media player 116 and Web browser 128. *Id.* at 5:59–60.

Content manger 112 creates and provides a media voucher to the user in response to a request. *Id.* at 8:19–23. The media voucher includes a unique voucher ID, a media ID, a receipt, and the delivery server address. *Id.* at 8:27–41, Fig. 3. The media voucher is used for tracking a reservation

because delivery servers may have a “limited number of active streams of data being delivered at any one time.” *Id.* at 14:65–15:1, 15:10–15, 15:63–16:3, 17:22–28.

3. Madison (Exhibit 1007)

Madison discloses a method for controlling access to streaming media. Ex. 1007, code (57). Figure 8 of Madison is reproduced below.

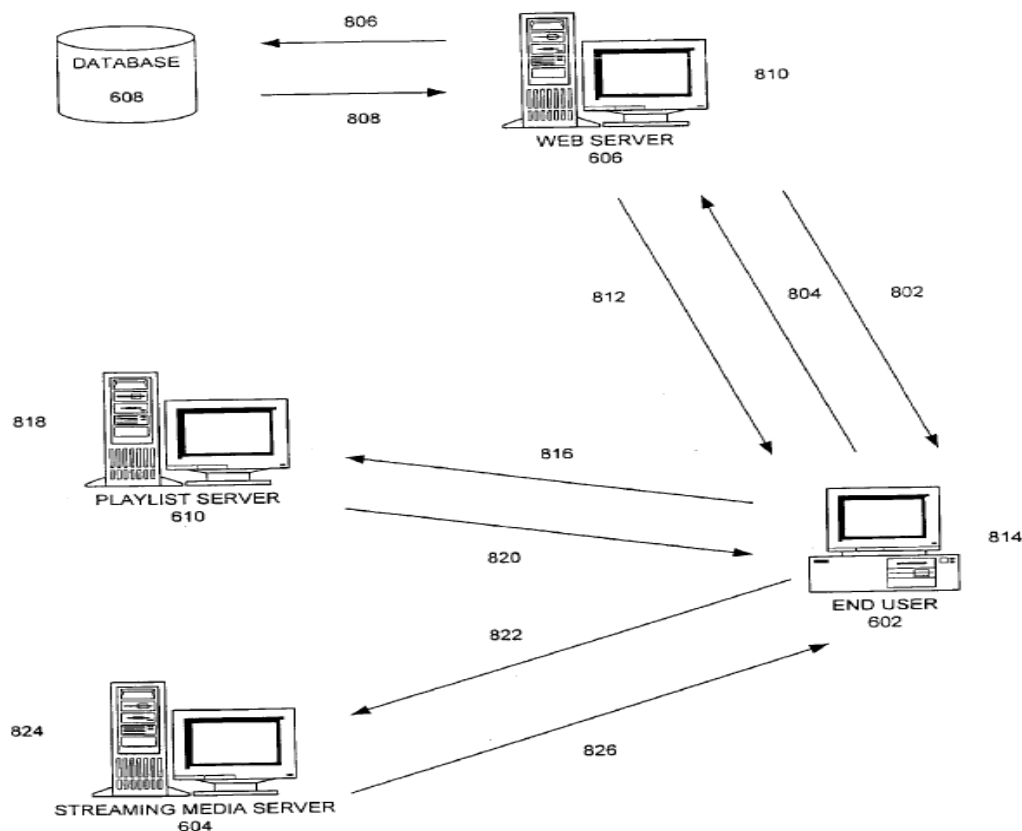


Figure 8 of Madison above illustrates a system comprising web server 606, database 608, playlist server 610, streaming media server 604, and end user device 602. Ex. 1007 ¶¶ 72–80. Web server 606 provides a web page requesting the end user to log in to an authorization application and

presenting the user with the option of viewing certain streaming media (step 802). *Id.* ¶ 72. In response, the user provides the user ID and activates the stream request link, thereby requesting access to a streaming media content file and sending the stream request link and the user ID to web server 606 (step 804). *Id.* ¶¶ 72–74.

Once web server 606 receives the stream request, it requests and obtains the private key from database 608 (steps 806, 808), and uses the private key to generate the authorization ticket. *Id.* ¶¶ 75–76. In step 812, web server 606 sends the ticket and the user ID to end user processor 602. *Id.* ¶ 76. In step 816, end user processor 602 makes a call to playlist server 810 and, in step 818, playlist server 810 is provided with the link, playlist ID, ticket and user ID, and then it generates a redirector file—namely, an Advanced Stream Redirector (“ASX”) file. *Id.* ¶ 79. To generate the redirector file, the playlist server retrieves the stream ID of content file comprising the playlist and the information necessary to link the content file, including the Hostname, URL Prefix and Filename, associated with the stream ID. *Id.* The redirector file contains a link to the requested content, along with the ticket and public key (i.e., stream ID of content file and user ID), as well as “other information, such as metadata for the content file, or other, non-secure files, such as advertisements.” *Id.* ¶¶ 79, 82.

In an alternate embodiment, when the user provides its user ID and activates the stream request link (in step 84), the authentication application running on web server 606 generates the ticket, appends the ticket and end user ID to the stream request link, and directly makes the call to playlist

server 610 to create the redirector file. *Id.* ¶ 80. Because web server 606 also passes to playlist server 610 information identifying the media player on end user processor 62, playlist server 610 forwards the redirector file to media player (in step 820, thereby obviating steps 812, 814, and 816). *Id.* In step 822, the media player makes a call to streaming media server 604, as identified in the ASX file, and provides media server 604 with the copy of the requested content's stream ID, the ticket generated by web server 606 and the user ID. *Id.* ¶ 83. In response, streaming media server 604 determines whether to grant the user access to the requested content (step 824). *Id.* ¶ 84.

4. Holtz (Exhibit 1008)

Holtz discloses how a “multimedia production and distribution system collects or assembles a media production (such as, a news program, television programming, or radio broadcast) from a variety of sources, including television stations and other media hosting facilities.” Ex. 1008, code (57). Figure 1 of Holtz is reproduced below.

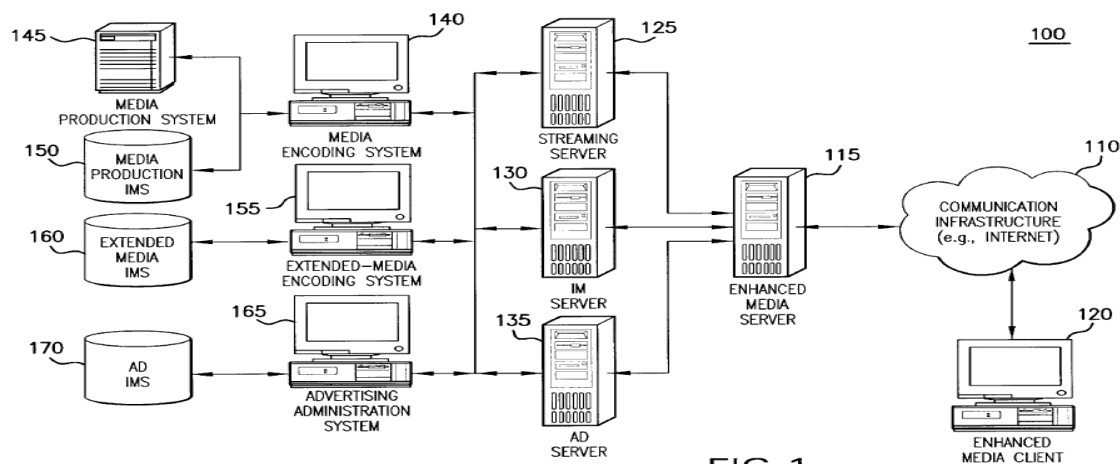


Figure 1 of Holtz illustrates enhanced media production and distribution system 100, which includes enhanced media server 115 and one or more enhanced media clients 120. *Id.* at 7:36–56. Media server 115 is connected to streaming server 125, information management (IM) server 130, and advertisement server 135. *Id.* at 8:23–25.

Holtz discloses that “[a]dvertising is linked to each segment of each customized program so that the user when viewing the customized programming also views the associated advertising.” *Id.* at 11:63–66. “The segments, which make up the customized program, are automatically sequenced together with the linked advertisements in such a fashion that the program appears to have been created for the user according to a subject matter specification indicated by the user.” *Id.* at 12:65–3:2.

E. Obviousness over Eyal and Wiser

Petitioner asserts that claims 1–3, 5–6, 19–21, 23, 26–27, 30–31, and 33 are unpatentable under § 103(a) as obvious over Eyal and Wiser, citing Dr. Houh’s Declaration for support. Pet. 24–54 (citing Ex. 1003). Patent Owner argues that Eyal and Wiser fail to disclose certain claim limitations, and that Petitioner fails to articulate a reason to combine the prior art teachings, citing to the Declaration of Mr. Adams for support. PO Resp. 31–48, 61–66 (citing Ex. 2012). For the reasons stated below, we find that Petitioner has demonstrated by a preponderance of the evidence that claims 1–3, 5–6, 19–21, 23, 26, 27, 30–31, and 33 would have been obvious over Eyal and Wiser. We do not find Patent Owner’s arguments and

Mr. Adams's testimony refute Petitioner's showing. Our analysis below focuses on the disputed claim elements.

1. “At least one portion of the requested media” and “other media”

Claims 1 and 19 require a “computing device” to receive a request for media from a “communication device” that is capable of obtaining “at least one portion of the requested media” and “at least one other media” from a “resource.” *See, e.g.*, Ex. 1001, 50:53–59. Claims 1, 19, and 31 also require identifications of “the at least one portion of the requested media” and the “other media.” *See, e.g., id.* at 51:4–6. Claim 23 requires a name associated with the requested media. *Id.* at 55:1–6. Claim 6 recites “identifying one or more other portions of the requested media.” *Id.* at 51:55–56.

Petitioner asserts that Eyal in view of Wiser discloses these claim elements. Pet. 31–35, 37–38, 46–48, 51. Petitioner avers that Eyal discloses receiving by server modules (collectively, the “computing device”) a request for media from a user terminal (the “communication device”). *Id.* (citing Ex. 1005, 1:63–65, 10:17–18, 10:33–38, 11:38–44, 13:9–17, 19:30–40). Petitioner points out that Eyal teaches that, in response to the request, the server may respond with a play-list containing links to multiple portions of the requested media and that each portion of the requested media is identified as a separate URL in the play-list that is transmitted to the user terminal, as required by claims 1, 6, 19, 23, and 31. *Id.* (citing Ex. 1005, 12:37–63 (“metadata information include . . . identification”), 13:1–8, 15:37–41 (“A play-list generator module 260 generates a plurality of play-lists based on information in the database management system 245.”)),

15:55–58, 20:9–14 (identifier metadata “may provide name of a specific media creation”), 20:25–27, 20:30–38, 20:50–62, 26:33–42, 27:33–37 (“Each play-list may include one or more media link URLs and media metadata.”), 32:62–67, 33:35–38 (“[P]lay-lists may be generated for preferences and profiles specified by the user.”), 35:18–22; Ex. 1003 ¶¶ 176–178, 209–213, 238–240, 250–252). Petitioner avers that Eyal’s media links include “an identification of the at least one other media” (targeted commercials), as required by claims 1, 19, and 31. *Id.* (citing Ex. 1005, 3:35–38, 12:37–63, 13:1–8 (“[L]inks to streaming media commercials may be inserted into the play-lists in various locations between media clips.”), 15:37–41, 15:55–58, 20:9–14, 20:30–36, 35:18–22; Ex. 1003 ¶¶ 177, 178, 250–252). We agree with Petitioner and, for the reasons given, find that Eyal in view of Wiser teaches the aforementioned elements of claims 1, 6, 19, 23, and 31.

Patent Owner counters that “[t]he claims of the ’673 patent are directed to a method of streaming requested media in *portions* (i.e., portion-by-portion/one or more *portions* at a time), not the entire media all together.” PO Resp. 9–12, 34–36, 47–48; Sur-reply 1–7, 9–11. According to Patent Owner, the “requested media is a single piece of media and portions are a part of that media.” PO Resp. 48. Patent Owner also argues that Eyal “does not disclose determining availability of, identifying, streaming, or obtaining *portions* of requested media (e.g., a portion of a movie)” because “the Eyal system merely provides links (URLs) to the *full* media (e.g., an *entire* movie).” *Id.* at 35–36 (citing Ex. 1005, 19:48–59,

20:1–3; Ex. 2012 ¶¶ 222, 228). Patent Owner avers that “neither Eyal or Wisner discloses requested media have ‘other portions,’” as recited in claim 6. *Id.* at 47. Patent Owner also argues because claim 31 requires “portions of the requested media,” “Eyal discloses delivery of full or complete media files and does not disclose . . . delivery of portions of media files.” *Id.* at 48. Patent Owner further argues that Eyal’s search request is not a media request because Eyal’s search request is a search for information that may or may not return any results and the claimed “request for media” is a request for a specific known media item. Sur-reply 10–11.

At the outset, Patent Owner improperly assumes that all of the challenged claims require “streaming requested media *in portions*.” PO Resp. 9–12, 34–36; Ex. 2012 ¶¶ 222, 228; Sur-reply 1–7, 9–11. Patent Owner admits that only claim 6 recites “identifying one or more other portions of the requested media.” PO Resp. 35. Through its arguments, Patent Owner implicitly construes the claim term “at least one portion of the requested media” to exclude the entirety of the “requested media” or to require that the “requested media” be broken up into portions. As discussed above, in a preferred embodiment of the ’673 patent, the viewer sends a request for *each media clip* (the “requested media”) to a “computing device” and each media clip is received *in its entirety*, not broken up or received one portion at a time, as Patent Owner alleges is required by the claims.

Ex. 1001, 13:49–14:2. For the reasons discussed above in Section IIA.1, we decline to adopt Patent Owner’s implicit claim construction. However, even if we were to apply Patent Owner’s construction, we still would find that

Petitioner has shown that Eyal in view of Wiser teaches the claim elements in dispute for the reasons stated below.

Notably, Patent Owner's arguments also improperly rest on the premise that the "requested media" is a single entire piece of media (e.g., an entire movie) and "portions of the requested media" are portions of the movie. PO Resp. 9–12, 34–36; Ex. 2012 ¶¶ 222, 228; Sur-reply 1–7, 9–11. The '673 patent makes clear that the "requested media" may be a single media item or multiple media items (e.g., a program with multiple media items), and that "[m]edia may include one or more *media clips or a part of a media clip*." Ex. 1001, 3:47–49, 4:10–20, 18:30–32, 19:10–11 (emphasis added). The Specification discloses that the "content owner may create a program having one or more media items" including "*a media clip for a movie and an advertisement*," and that a "viewer may desire to receive one or more of the media identified in the program." *Id.* (emphasis added). Hence, the "requested media" may be "a media clip for a movie" or a program having a plurality of media items, not necessarily a single entire piece of media or an entire movie as Patent Owner alleges. Interpreting the "requested media" to require a single entire media item or an entire movie would be inconsistent with the Specification.

We also do not agree with Patent Owner that Eyal "does not disclose determining availability of, identifying, streaming, or obtaining *portions* of requested media" and that Eyal's search request is not a media request. PO Resp. 35–36; Ex. 2012 ¶¶ 222, 228. Patent Owner fails to recognize that Eyal's play-list includes links to multiple portions of the requested media.

Ex. 1005, 20:25–64, 32:62–67. Eyal discloses delivering portions of the requested media, such as movie clips, movie trailers, highlights from sporting events, music videos, and individual songs of a program. *Id.* at 11:21–37, 16:6–17 (“a user on user terminal 210 may select to hear Jazz programming” using “the features of a user-interface” and the user may “retrieve additional media clip information”), 30:29–37 (“media clips are played back on the user terminal” “continuously, so that the user’s media experience resembles listening to an album”). Eyal also discloses that “links to streaming media commercials may be inserted into the play-lists in various location between media clips.” *Id.* at 13:1–3. Further, Eyal discloses that the user-interactive features of the user-interface “allow users to submit search requests and other media requests for playback,” such as menu fields 1910–1940 shown in Figure 21 of Eyal, allowing the user to request songs or media clips from a specific artist or record. *Id.* at 36:3–48, Fig. 21. During his cross-examination by Petitioner, Mr. Adams admitted that Eyal’s search request is a media request. Mr. Adams testified that “by making a request for the top jazz hits playlist, . . . the user is making a request for media,” and that “[i]n this context, the playlist has a number of songs on it. And so[,] the totality of the playlist is all of the songs one after another. And each song is part of that playlist.” Ex. 1081, 82:17–83:8.

For the foregoing reasons, we find that Petitioner has shown that Eyal in view of Wiser discloses the aforementioned elements of claims 1, 6, 19, 23, and 31.

2. “Media selector,” “advertisement selector,” and “rule”

Claim 1 requires determining “whether the at least one portion of the requested media is available for streaming in accordance with at least one program comprising at least one media selector defining how to select at least one other media” (an advertisement) and determining “the at least one other media based on the at least one media selector.” Ex. 1001, 50:60–67. Claim 2 requires that the media selector “comprises at least one rule” that is used to determine “other media.” Claim 5 requires an “advertisement selector.” *Id.* at 51:47–53. Claim 19 requires a rule “identifying how to select at least one other media.” *Id.* at 54:11–19.

Petitioner asserts that Eyal in view of Wisner discloses these claim elements. Pet. 33–35, 44–46, 48. Petitioner explains that Eyal discloses determining whether the requested media is available for streaming using a play-list generator because, before Eyal’s computing device inserts a media link into a play-list, “each media link is verified . . . to contain media that is available for playback for users” and Eyal’s play-list generator determines which items to include in the playlist. *Id.* (citing Ex. 1005, 12:33–36, 33:9–15, 35:37–42). Petitioner also explains that the play-list in Eyal may be “personalized for the user” based on the “preferences and profiles specified by the user.” *Id.* (citing Ex. 1005, 31:29–31, Fig. 17). According to Petitioner, because Eyal’s play-list may include other media (e.g., commercials), a relevant artisan would have understood that the play-list generator (comprising a media selector) defines how to select that other media as well. *Id.* (citing Ex. 1005, 13:1–8; Ex. 1003 ¶ 167).

Petitioner avers that Eyal's media selector comprises an advertisement selector and selects advertisements based on a rule because Eyal teaches that the streaming media commercials "are targeted to the audience likely to listen to the media available on the play-list." *Id.* at 44–46 (citing Ex. 1005, 13:1–5, 15:37–45, 30:3–6). We agree with Petitioner that Eyal discloses a media selector comprising an advertisement selector and a rule identifying how to select an advertisement, as required by claims 1, 2, 5, and 19.

Patent Owner counters that inserting targeted advertisements "says nothing about whether the play-list generator has rules to *select* 'other media.'" PO Resp. 44–47 (citing Ex. 2012 ¶¶ 258–259, 262, 264). Patent Owner avers that a relevant artisan would have understood that selecting "other media" is resource intensive and would be performed by a separate server. *Id.* Patent Owner argues that Dr. Houh admitted advertisements can be selected by a separate server. *Id.* (citing Ex. 2019, 352:9–20).

Patent Owner's arguments are based on speculation. Patent Owner's reliance on Dr. Houh's testimony is misplaced because Dr. Houh was answering a hypothetical question that is not related to Eyal. Ex. 2019, 352:9–20. Nothing in Eyal suggests that the advertisements are selected by a separate server. Rather, Eyal makes clear that its play-list generator determines which items (including advertisements) to include in the play-lists, and that those play-lists are "personalized for the user of the end terminal" and "generated for preferences and profiles specified by the user." Ex. 1005, 33:9–15, 13:1–8, Fig. 12. Eyal also discloses that "links to streaming media commercials may be inserted into the play-lists in various

locations between media clips,” and that “[t]hese commercials are targeted to the audience likely to listen to the media available on the play-list.” *Id.* Dr. Houh testifies that a relevant artisan would have understood that Eyal’s play-list generator, acting as a media selector, “determines which items to include in the play-list” and “defines how to select that ‘other media’ as well.” Ex. 1003 ¶ 167. Thus, we disagree with Patent Owner’s argument that selecting advertisements would be performed by a separate server. Based on the evidence of record, we find that Eyal teaches an “advertisement selector” using a rule for selecting targeted advertisements. Therefore, we find that Petitioner has shown that Eyal in view of Wiser teaches the aforementioned elements of claims 1, 2, 5, and 19.

3. “Play script”

Claim 1 requires generating a play script based on one or more capabilities of the communication device. Ex. 1001, 51:1–3. Claim 19 requires generating a play script based on “one or more attributes of the communication device” and “one or more rules . . . identifying how to select at least one other media.” *Id.* at 54:11–16. Claim 20 requires the “attributes” to include a type of player used by the communication device, the format used, or the protocol used. *Id.* at 54:41–50. Claim 21 requires “one or more other rules” including a creation rule. *Id.* at 54:55–61.

Petitioner asserts that Eyal in view of Wiser discloses these claim elements. Pet. 35–37, 48–51. Petitioner explains that, in response to the request from the communication device, Eyal’s server uses its play-list generator to generate a play-list (a “play script”) based on a capability of the

user's terminal by adjusting the URLs based on the type of player on the terminal. *Id.* (citing Ex. 1005, 9:14–16, 13:52–54, 15:37–45, 21:35–46, 35:37–42). Petitioner also points out that Eyal discloses generating and transmitting a play-list based on an attribute of the communication device, such as the type of player, the media format, or the protocol, because Eyal discloses communication devices with media players (e.g., RealNetwork Player, Microsoft Windows Media Player, and Apple QuickTime) using different formats (e.g., RM files for RealNetwork players) and protocols (e.g., PNM, HTTP, and RTSP). *Id.* (citing Ex. 1005, 18:13–15, 18:21–23, 21:35–46, 27:13–20).

In addition, Petitioner avers that Eyal teaches generating the play-list based on how the play-list generator identifies the “at least one other media” to be streamed with the requested media, because Eyal's play-list generator acting as a media selector determines which items to include in the play-list including targeted commercials. *Id.* at 33–44, 48 (citing Ex. 1005, 13:1–8 (“These commercials are targeted to the audience likely to listen to the media available on the play-list”), 15:41–45 (“The play-list generator module 260 may create play-lists 284 from predefined categories characterized by information stored in the database system for media links and metadata stored in table 247.”), 31:29–31, 33:9–15 (“play-lists may be generated for preferences and profiles specified by the user of user terminal 1710”)). Moreover, Petitioner explains that Eyal's play-list generator creates a play-list based on rules, including predefined categories of characteristics stored on a database, the ratings of certain media, or

otherwise personalized for the viewer. *Id.* at 50–51 (citing Ex. 1005, 15:37–45, 29:64–30:6). Petitioner asserts that Eyal also teaches another creation rule—“streaming media commercials may be inserted into the play-lists in various locations between media clips.” *Id.* (citing Ex. 1005, 13:1–8). We agree with Petitioner’s reasoning and find that, for the reasons given, Eyal in view of Wiser teaches the aforementioned claim elements of claims 1, 19, 20, and 21.

Patent Owner advances several arguments. PO Resp. 37–39. First, Patent Owner argues that Eyal’s playlist is not the claimed “play script” because a “play-list is merely a list of URLs that identify media,” and Eyal’s play-list does not include all four elements as required by the claims. *Id.*

Patent Owner’s argument is unavailing. An obviousness analysis is not an *ipsissimis verbis* test. *Cf. In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009) (noting that, in an anticipation analysis, “the reference need not satisfy an *ipsissimis verbis* test”). Rather, the test for obviousness is whether the combination of references, taken as a whole, would have suggested the patentees’ invention to a person having ordinary skill in the art. *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

Here, we find that Petitioner has shown sufficiently that Eyal in view of Wiser discloses a play-list (“play script”) that includes all four elements: (1) “identification of at least one portion of the requested media,” as discussed above in Section II.E.1, (2) “reservation identification,” as discussed below in Section II.E.4, (3) a URL to facilitate streaming of “at least one portion of the requested media,” as discussed above in Section

II.E.1, and (4) “instructions” used to obtain to portion(s) of media and “other media,” as discussed in Section II.E.5. Therefore, we find that the playlist in the combination of Eyal and Wiser discloses the claimed “play script.”

Second, Patent Owner argues that Eyal and Wiser do not disclose generating a play script based on capabilities and attributes of the “communication device.” PO Resp. 38–39. Patent Owner avers that Eyal does not disclose modifying URLs because “Eyal describes a ‘preferable’ format of writing the URL string and the purported benefits of format” and “any formatting of the URL in Eyal is *not* responsive to a request for specific media and is done without any knowledge of the capabilities of a specific communication device making the request.” Sur-reply 12–15.

Patent Owner’s arguments are conclusory. Eyal discloses generating a play-list based on a capability of a user device because the URLs within the play-list are modified based on the type of player employed by the user. Ex. 1005, 21:35–46 (describing using “HTTP” or “PNM” protocol signals in the URL depending on “the media playback component, particular if the playback component 211 is a RealNetworks PlayerTM”), 13:52–54 (“The multimedia capability is manifested in the availability of a streaming multimedia playback software and or hardware component.”). Eyal makes clear that “[t]his adjustment prevents playback component 211 from failing.” *Id.* Dr. Houh testifies that “to prevent the playback component from failing, the Eyal system adjusts the URLs in the play-list based on the type of player on the communication device.” Ex. 1003 ¶ 173. During cross-examination, Mr. Adams was asked that “in the context of Eyal, if a user using an Apple

QuickTime media playback component used Eyal to generate and return a playlist, would Eyal generate that playlist without any consideration of the fact that the user was using Apple QuickTime?” Ex. 1081, 77:8–13. In response, Mr. Adams admitted that “part of the function of Eyal was to look . . . behind those links and *determine its playability*,” and “part of that process would allow Eyal to discover if it was actually an Apple QuickTime asset or not,” because “Eyal is trying to make sure that the user experience is good, and that means *passing a playlist with assets that will actually be played to the appropriate media player*.” *Id.* at 77:15–78:3 (emphases added). Therefore, we find that Eyal discloses generating a play script based on capabilities and attributes of the communication device.

Finally, Patent Owner argues that Eyal does not disclose generating a play script based on a type of player used by the communication device, as required by claim 20. PO Resp. 47–48. Patent Owner also argues that Eyal and Wiser do not disclose generating a play script based (1) an attribute of the communication device and (2) a rule identifying how to select at least one other media, as recited in claim 19. *Id.* at 45–46; Sur-reply 16.

Patent Owner’s arguments are unavailing. As discussed above, Eyal teaches generating a play-list based on a capability of a user device because the URLs within the play-list are modified based on *the type of player employed by the user*, as required by claims 19 and 20. Ex. 1005, 13:52–54, 21:35–46; Ex. 1003 ¶ 173; Ex. 1081, 77:8–78:3.

Eyal also discloses rules for determining which items (including “other media”) to include in the play-list, as required by claim 19. Eyal

makes clear that its play-list generator determines which items to include in the play-list, and that those play-lists are “personalized for the user of the end terminal” and “generated for preferences and profiles specified by the user,” including by inserting “streaming media commercials,” “news items,” and “weather reports.” Ex. 1005, 33:9–15, 31:29–31, 13:1–8, Fig. 17.

Therefore, we agree with Dr. Houh that an ordinarily skilled artisan would have understood that Eyal’s play-list generator acting as a media selector “defines how to select that ‘other media’ as well.” Ex. 1003 ¶ 167.

Eyal also discloses generating a play-list based on a creation rule, as required by claim 21. As Petitioner explains, Eyal’s play-list generator creates a play-list based on rules, including predefined categories of characteristics stored on a database, the ratings of certain media, or otherwise personalized for the viewer. Pet. 50–51 (citing Ex. 1005, 15:37–45 (“A play-list generator module 260 generates a plurality of play-lists based on information in the database management system 245,” and it “may create play-lists 284 from predefined categories characterized by information stored in the database system”), 29:64–30:6 (“A play-list generator 1040 generates play-lists based on rating information maintained in the database management component 1045,” and “the play-lists 1042 are generated according to the current rating and/or rating for each media clip.”)). Eyal’s teaching that “streaming media commercials may be inserted into the play-lists in various locations between media clips,” is another type of creation rule. Ex. 1005, 13:1–8.

For the foregoing reasons, we find Petitioner has shown that Eyal in view of Wiser teaches the aforementioned elements of claims 19–21.

4. “Reservation identification” and “reservation”

Petitioner asserts that Eyal in view of Wiser discloses a “reservation identification,” as required by claims 1 and 19, and a “reservation,” as required by claim 3. Pet. 38–39, 44–45. Petitioner relies on Wiser’s media voucher to disclose a “reservation” and Wiser’s voucher ID to teach a “reservation identification” because it is used by the content manager and delivery server to allocate the delivery server’s limited resources and track reservations that are being fulfilled. *Id.* (citing Ex. 1006, 8:27–31, 14:61–64, 15:10–23, 17:21–28, 22:11–19; Ex. 1003 ¶¶ 179–82). Dr. Houh testifies that a relevant artisan would have used Wiser’s voucher ID in Eyal because it would “allow the allocation of a delivery server along with a timestamp of the time of delivery to serve each media request in the playlist of Eyal, thus eliminating the situation that when an item in the playlist is requested by the player, that the server is too overloaded to deliver the requested file.” Ex. 1003 ¶¶ 179–182, 201–204. We are persuaded by Petitioner’s showing that Eyal in view of Wiser teaches the “reservation” and “reservation identification” elements of claims 1, 3, and 19.

Patent Owner advances several arguments. PO Resp. 31–34, 47. First, Patent Owner argues that Wiser’s voucher ID is not a “reservation identification” because a voucher ID does not reserve system resources and “the reservation of Wiser is only used to indicate that the media exists and [is] available for purchase.” *Id.* (citing Ex. 1006, 17:3–6, 17:22–23,

18:12–22; citing Ex. 2012 ¶¶ 240–241). Patent Owner’s argument is unavailing. To the extent that Patent Owner argues that a reservation excludes media, we find that argument to be inconsistent with the definition in the Specification that defines the term “reservation” to encompass reserving “system resources, such as switches, processors, or *media*,” as discussed above in Section II.A.4. Ex. 1001, 10:34–37 (emphasis added).

Patent Owner also ignores Wiser’s teachings regarding reserving system resources—e.g., “a limited number of active streams of data being delivered at any one time.” *See, e.g.*, Ex. 1006, 14:66–15:23, Fig. 3. Wiser teaches that each delivery server can only handle a limited number of streams, so a content manager server determines which delivery server is available to service the request and “generates and returns . . . to the HTTP server 122 a media voucher [which] includes the network address 308 of the delivery server 118 and port number, voucher ID 302, and media ID 304.” Ex. 1006, 15:19–23, Fig. 3. Wiser explicitly links tracking the reservation to managing system resources because it is used by the content manager and delivery server to allocate the delivery server’s limited resources and track reservations that are being fulfilled. Ex. 1006, 14:65–15:23 (“When a delivery server 118 allocates a stream then, it updates the content manager 112 with this information.”), 17:22–24 (“The voucher packet includes a voucher ID generated by the content manager 112 to track the reservation.”). Therefore, we do not agree with Patent Owner’s argument that Wiser’s voucher ID does not reserve system resources. PO Resp. 31–33, 47.

Second, Patent Owner argues that Eyal’s “system is not the type of system that would even use reservations” because “Eyal discloses a *search engine* that enables a user to search for and obtain media from *third party* websites.” PO Resp. 32, 47, 61–66 (citing Ex. 2012 ¶ 243).

Patent Owner’s argument is based on speculation. Eyal’s teachings are not limited to streaming media from third-party servers only. Ex. 1005, 10:34–45 (“Other embodiments may be implemented on any network that carries digital information, such as local area networks (LANs), Wide Area Networks (WAN), Extranets, Intranets, Internet, and wireless networks.”). As Petitioner explains, Eyal’s teachings regarding searching are applicable to stream media from both third-party servers or servers managed as part of a single media network. Reply 16–17. Indeed, Mr. Adams admitted that so long as media “links are available and searchable . . . Eyal would work,” regardless of whether the media was stored across the Internet or as part of a single media network. Ex. 1081, 72:18–73:11.

Furthermore, Dr. Houh testifies that methods of reserving resources were well-known in the art by the late 1990s and that a relevant artisan would have known that “delivery server resources such as memory and available bandwidth were finite and needed to be managed to ensure timely delivery and quality of service of streaming media.” Ex. 1003 ¶¶ 107, 150 (citing Ex. 1019, 26³ (Discussion on Resource Reservation Protocols

³ Citations to Exhibit 1019 refer to the page numbers added by Petitioner at the bottom right corner.

(RSVP) in the book entitled “Communication and Computing for Distributed Multimedia Systems”); Ex. 1023 (RSVP Specification); Ex. 1024, 19⁴ (Discussion on the Reservation Protocol in the book entitled “Multimedia Servers”)). Indeed, Patent Owner admits that the “use of reservations were generally known” at the time of the invention, and Mr. Adams admitted that the RSVP Specification (Ex. 1023) was “a very well-known document that talks about ways of improving the quality of an Internet connection over an IP network.” PO Resp. 65; Ex. 1081, 62:17–25.

In addition, Eyal discloses that “[m]any Internet streaming media outlets provide a limited number of source nodes” and that “[t]he sites can be unreliable when the number of users accessing the site become congested.” Ex. 1005, 1:45–47. Wiser also discloses that “each delivery server 118 is licensed and configured by the system provider to have a limited number of active streams of data being delivered at any one time.” Ex. 1006, 14:65–15:1. As Petitioner explains, “utilizing reservations for streaming media was . . . desirable to address finite memory and bandwidth for the delivery server,” and it would have improved the user experience by providing a more reliable streaming experience. Pet. 31; Reply 17–18; Ex. 1003 ¶¶ 150–151. Thus, we do not agree with Patent Owner’s argument that Eyal’s “system is not the type of system that would even use reservations.” PO Resp. 32, 47, 61–66.

⁴ Citations to Exhibit 1024 refer to the page numbers added by Petitioner at the bottom right corner.

Third, Patent Owner argues that “Eyal *teaches away from* including a ‘reservation identification’ in a play-list” because Eyal would send the reservation identification as part of the control information, not with the play-list. PO Resp. 33, 47 (citing Ex. 1005, 20:30–42, Fig. 4).

Patent Owner’s argument is unavailing. “A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994). The “mere disclosure of alternative designs does not teach away.” *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004). Here, nothing in Eyal would discourage an ordinarily skilled artisan from including a reservation identification in a play-list. Patent Owner incorrectly assumes that if a reservation were implemented in Eyal’s system, the reservation identification must be sent as part of the control information, not in the play-list with the media ID and the IP address of the delivery server.

Notably, Wiser’s voucher ID is not just used for tracking system resources, but also indicates that the media is available for download. Ex. 1006, 17:3–6, 18:12–22. Wiser also makes clear that the voucher ID is sent to the user’s device, along with the media ID and the network address of the delivery server in a media voucher, similar to Eyal’s play-list that includes the media ID and IP address of the delivery server. Ex. 1006, 8:19–42, 15:19–23, Fig. 3; Ex. 1005, 4:47–55, 12:37–63, 15:37–58, 20:9–63, 32:45–57. As Dr. Houh points out, “[l]ike the play-list in Eyal,

Wiser’s media voucher includes an identification of the media and the delivery server address.” Ex. 1003 ¶ 149. Dr. Houh testifies that a relevant artisan “would have recognized the benefits of Wiser’s voucher ID to reserve resources and track usage statistics associated with streaming” and that “[m]odifying the play-list in Eyal with the voucher ID in Wiser would allow the system to track and allocate finite resources, such as the number of streams a delivery server can handle and to allow the delivery server to validate and authenticate the user requesting media file.” *Id.* ¶ 151.

Fourth, Patent Owner argues that “Wiser provides no insight as to a voucher ID contained in a play script because Wiser does not disclose any type of play script or play-list.” PO Resp. 34, 47 (citing Ex. 2012 ¶ 245). Patent Owner’s argument improperly attacks Wiser individually. One cannot show nonobviousness by attacking references individually where the grounds of unpatentability are based on combinations of references. *In re Keller*, 642 F.2d 413, 426 (CCPA 1981). Instead, the test for obviousness is whether the references, taken as a whole, would have suggested the claimed subject matter to a person of ordinary skill in the art at the time the invention was made. *See Merck*, 800 F.2d at 1097.

Finally, Patent Owner argues that “neither Eyal or Wiser discloses . . . a play script that includes a ‘reservation identification’ as well as all *four* additional elements.” PO Resp. 32 (citing Ex. 2012 ¶ 242). However, we find that Eyal in view of Wiser discloses a play-list that includes a reservation identification, as discussed above in this Section, and all other additional elements, as discussed above in Section II.E.3.

For the foregoing reasons, we find Petitioner has shown that Eyal in view of Wiser teaches a “reservation identification,” as recited in claims 1 and 19, and a “reservation,” as recited in claim 3.

5. “Instructions”

Claims 1 and 19 require “one or more instructions” be used “together with at least one URL and the reservation identification” to enable the communication device to “obtain the at least one portion of the requested media and the at least one other media.” *See, e.g.*, Ex. 1001, 51:19–24. Claim 26 requires “the one or more instructions” to “include one or more instructions relating to at least one of a media format, a media language, a media sequence, and an advertisement insertion.” *Id.* at 55:23–27.

Petitioner relies on Eyal’s metadata related to a media format, media sequence, and advertisement insertion, the types of instructions recited in claim 26, to teach the claimed “instructions.” Pet. 41–42, 51–52. Petitioner explains that Eyal’s metadata in the play-list may instruct the user’s device regarding how to obtain the media—e.g., duration, media URL, source web site, media type, clip broadcast quality, and image size for videos. *Id.* (citing Ex. 1005, 12:43–63, 27:33–37). Petitioner also explains that Eyal’s play-list includes instructions relating to obtaining media from the URLs in a particular sequence and instructions for obtaining advertisement media. *Id.* (citing Ex. 1005, 13:1–4, 27:53–55; Ex. 1003 ¶¶ 184–187). We agree with Petitioner’s reasoning and find that, for the reasons given, Eyal in view of Wiser discloses the claimed “instructions.”

Patent Owner advances several arguments. PO Resp. 39–43. First, Patent Owner argues that Eyal’s URLs cannot be the claimed “instructions” because the claims recite two separate elements. *Id.* at 40–42; Sur-reply 15. However, Patent Owner’s argument improperly rests on the premise that instructions cannot be part of the URLs.

The Federal Circuit has explained that a claim element should not be construed narrowly to require a separate and distinct component, when the claim or specification indicates that the claim element need not be a separate component, or the specification suggests that a single component can function as both elements. *Linear Tech. Corp. v. ITC*, 566 F.3d 1049, 1054–56 (Fed. Cir. 2009); *see also Powell v. The Home Depot U.S.A., Inc.*, 663 F.3d 1221, 1231–32 (Fed. Cir. 2011) (stating that because “the specification teaches that the cutting box may also function as a ‘dust collection structure’ to collect sawdust and wood chips generated during the wood cutting process, . . . it does not suggest that the claim terms ‘cutting box’ and ‘dust collection structure’ require separate structures”); *Retractable Techs., Inc. v. Becton, Dickinson & Co.*, 653 F.3d 1296, 1303 (Fed. Cir. 2011) (“The claims and the specifications indicate that the ‘needle holder’ and ‘retainer member’ need not be separately molded pieces.”); *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1310 (Fed. Cir. 2005) (noting that the asserted claim language did not support a limitation requiring that the claimed “RF receiver” and “destination processor” be separate and distinct).

Here, the claims do not require the instructions to be separate from the URLs. The ’673 patent, which incorporates by reference U.S. Provisional

Application No. 60/263,044 (“the ’044 application,” Ex. 1011⁵), discloses that “there are many possible ways of formatting the URLs.” Ex. 1011, 18. Indeed, the Specification also makes clear a URL may include other claim elements, such as the identification of the requested media and the reservation identification. Ex. 1001, 8:61–64, 10:28–33, 24:45–47.

Mr. Adams admitted that formatting the instructions “as part of the URL string doesn’t actually . . . change[] anything . . . you’re still transmitting the instructions,” and that “[i]t’s a formatting difference, quite frankly” and “[s]o I think actually both satisfy the claims in my opinion.” Ex. 1081, 180:22–181.5. When arguing that the prior-filed applications provide written description support for the claims, Patent Owner alleges that the presentation ID in a URL is the claimed “instructions.” PO Resp. 27–28; Ex. 1011, 18 (providing an example of a URL that includes the server type, reservation identification, server name, order identification, presentation identification, and media identification—“rtcp://servertype.reservationid.nrpname.net/orderid/presentationid/mediaid”). Moreover, Eyal also discloses instructions related a media format and advertisement insertion.

Second, Patent Owner argues that Eyal’s ordering and metadata relate to “*how* the media is *displayed* on the user device,” not for obtaining the media. PO Resp. 41–42. Patent Owner also argues that Petitioner and Dr. Houh admit that “instructions about *how* the player should *present* the

⁵ Citations to Exhibit 1011 refer to the page numbers added by Petitioner at the bottom right corner.

media to the viewer,’ [are] not ‘instructions’” to obtain media. *Id.* (citing Pet. 18; Ex. 2019, 290:12–291:8).

However, claim 26 refers to a media format, media sequence, and advertisement insertion, as types of instructions used together with a URL and a reservation identification to obtain the requested media and other media. Ex. 1001, 55:23–27. Patent Owner implicitly construes the term “instructions” to exclude those instructions recited in claim 26. As discussed above in Section II.A.2, we decline to adopt Patent Owner’s construction and construe the claimed “instructions” to encompass the types of instructions recited in claim 26. Moreover, Mr. Adams admitted that sequencing instructions are related to how the media is obtained because “[i]t would be normal to obtain the portions or the media clips in the order in which they’re going to be played.” Ex. 1081, 131:14–19. Therefore, we agree with Petitioner that Eyal discloses the claimed “instructions,” because Eyal’s play-list include instructions related to a media format, media sequence, and advertisement insertion, the types of instructions recited in claim 26. Ex. 1005, 12:43–63, 13:1–4, 27:33–55, 27:53–55.

Patent Owner’s reliance on Petitioner’s statement and Dr. Houh’s testimony is misplaced because they are directed to the ’044 application, not Eyal. Notably, Petitioner’s statement is related to “instructions in the *presentation script* ‘about how to dynamically *change* the content” disclosed in the ’044 application. Ex. 1011, 29. As Petitioner explains, “[t]hese instructions differ from those claimed because the presentation script stored in the reservation cache and not transmitted to the user” and “rather than

enable the communication device to *obtain* the requested media and other media, they are ‘instructions’ [to] *change* the content.” Pet. 18 (citing Ex. 1011, 29). Dr. Houh’s testimony was answering Patent Owner’s questions regarding the ’044 application’s disclosure related to the “instructions about how the player should present the media to the viewer,” not Eyal’s instructions. Ex. 2019, 288:4–10. Thus, Petitioner’s statement and Dr. Houh’s testimony do not support Patent Owner’s argument that Eyal does not disclose the claimed “instructions.”

Finally, Patent Owner argues that Eyal does not disclose using a “reservation identification” to “obtain” media, and Wiser does not disclose using all three pieces of information (instructions, URLs, and reservation identification) together to obtain media. PO Resp. 43.

However, Patent Owner improperly attacks each reference individually. *Keller*, 642 F.2d at 426; *Merck*, 800 F.2d at 1097. As discussed above, Eyal in view of Wiser teaches a play-list that includes instructions, URLs, and a reservation identification. And, Eyal’s server transmits the play-list to the user terminal to enable the user terminal to obtain the requested media and the other media. Ex. 1005, 2:39–42, 12:43–63, 13:1–4, 27:33–55, 27:53–55; Ex. 1003 ¶¶ 184–187.

For the foregoing reasons, we find Petitioner has shown that Eyal in view of Wiser teaches the claimed “instructions” of claims 1, 19, and 26.

6. “on -demand media,” “video,” and streaming from a “media servers”

Claim 27 requires the requested media to be an “on-demand media” and claim 30 requires a “video.” Ex. 1001, 55:29–32, 55:45–47. Claim 33

recites streaming from a “media servers.” *Id.* at 55:64–67. For these claims, Petitioner explains that the requested media in Eyal comprises of on-demand media and videos, such as “movie clips, recordings from video recorders, and animation such as cartoons,” as required by claims 27 and 30.

Pet. 51–54 (citing Ex. 1005, 11:21–37). Petitioner also explains that Eyal discloses that the user terminal continuously plays back media from media servers by using the instructions and information from the server, as required by claim 33. *Id.* (citing Ex. 1005, 1:15–19, 2:7–26, 27:47–53, Fig. 19). We agree with Petitioner’s reasoning and find that, for the reasons given, Eyal in view of Wiser teaches the elements of claims 27, 30, and 33.

Patent Owner argues that “Eyal discloses delivery of full or complete media files and does not disclose . . . delivery of portions of media files.”

PO Resp. 48. Essentially, Patent Owner repeats the same arguments as those for claims 1 and 19. We find those arguments unavailing for the reasons stated in Sections II.E.1. We also find that Petitioner has shown that Eyal in view of Wiser teaches the elements of claims 27, 30, and 33.

7. Reasons to combine the teachings of Eyal and Wiser

Petitioner acknowledges that Eyal does not explicitly disclose generating a reservation identification or a reservation. Pet. 29–30.

Petitioner avers that a relevant artisan would have applied Wiser’s voucher ID as part of Eyal’s play-list sent in response to a user’s request for media. *Id.* (citing Ex. 1003 ¶¶ 147–149). Dr. Houh testifies that Wiser explains that generating and tracking reservations by the content server using a voucher ID (a reservation identification) is necessary because delivery servers may

have a “limited number of active streams of data being delivered at any one time.” Ex. 1003 ¶ 149 (quoting Ex. 1006, 14:65–15:1). We find that Petitioner has articulated a sufficient reason to combine Eyal and Wiser.

Patent Owner counters that Eyal and Wiser disclose “*fundamentally different systems*” because Eyal’s system is a “*search engine* that enables a user to search for and obtain media from *third party* websites,” whereas Wiser’s system is “actually managing/operating the streaming servers.” PO Resp. 61–64 (citing Ex. 2012 ¶¶ 178–185). Patent Owner avers that, because Eyal does not manage the streaming servers, Eyal does not have to consider reserving system resources, and that a relevant artisan would not have been motivated to apply Wiser’s teachings to Eyal’s system. *Id.*

Patent Owner’s arguments are based on speculation. As discussed above in Section II.E.4, Eyal’s teachings are not limited to streaming media from third-party servers only. Ex. 1005, 10:34–45. We agree with Petitioner that Eyal’s teachings regarding searching are applicable to stream media from both third-party servers or servers managed as part of a single media network. Reply 16–17. Indeed, Mr. Adams admitted that so long as media “links are available and searchable . . . Eyal would work,” regardless of whether the media was stored across the Internet or as part of a single media network. Ex. 1081, 72:18–73:11.

Furthermore, Dr. Houh testifies that methods of reserving resources were well-known in the art by the late 1990s and that a relevant artisan would have known that “delivery server resources such as memory and available bandwidth were finite and needed to be managed to ensure timely

delivery and quality of service of streaming media.” Ex. 1003 ¶¶ 107, 150 (citing Ex. 1019, 26; Ex. 1023; Ex. 1024, 19). Indeed, Patent Owner admits that the “use of reservations were generally known” at the time of the invention, and Mr. Adams admitted that the RSVP Specification (Ex. 1023) was “a very well-known document that talks about ways of improving the quality of an Internet connection over an IP network.” PO Resp. 65; Ex. 1081, 62:17–25. The RSVP Specification is “a resource reservation setup protocol designed for an integrated services Internet,” providing “receiver-initiated setup of resource reservations for multicast or unicast data flows, with good scaling and robustness properties.” Ex. 1023, 1.

In addition, Eyal discloses that “[m]any Internet streaming media outlets provide a limited number of source nodes” and that “[t]he sites can be unreliable when the number of users accessing the site become congested.” Ex. 1005, 1:45–47. Wiser teaches that “each delivery server 118 is licensed and configured by the system provider to have a limited number of active streams of data being delivered at any one time.” Ex. 1006, 14:66–15:1. As Petitioner explains, “utilizing reservations for streaming media was . . . desirable to address finite memory and bandwidth for the delivery server,” and it would have improved the user experience by providing a more reliable streaming experience. Pet. 31; Reply 17–18. Dr. Houh testifies that a relevant artisan would have been motivated to modify Eyal’s play-list with a voucher ID, as taught by Wiser, because it “would allow the system to track and allocate finite resources, such as the number of streams a delivery server can handle and to allow the delivery

server to validate and authenticate the user requesting the media file.”

Ex. 1003 ¶¶ 150–151. “[W]hen a patent ‘simply arranges old elements with each performing the same function it had been known to perform’ and yields no more than one would expect from such an arrangement, the combination is obvious.” *KSR*, 550 U.S. at 418 (*quoting Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 282 (1976)). For the foregoing reasons, we find that Petitioner has articulated an adequate reason to combine the teachings of Eyal and Wiser.

8. Conclusion on Obviousness over Eyal and Wiser

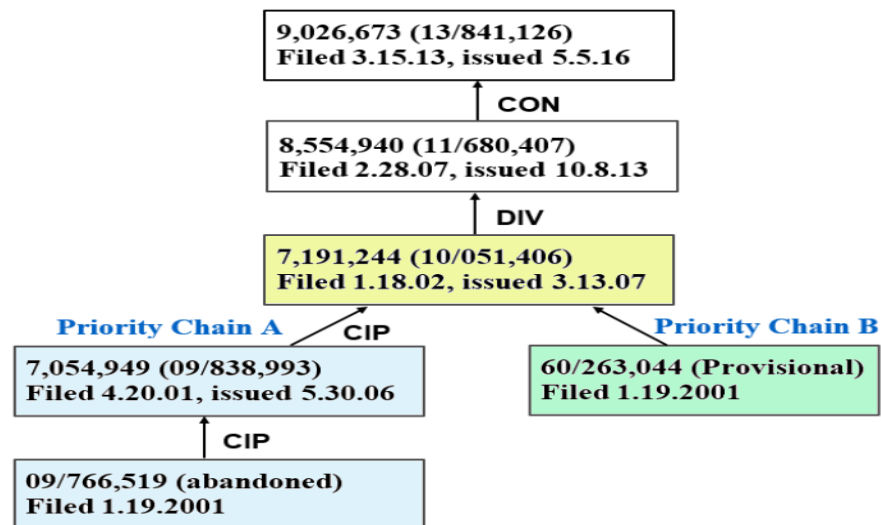
Based on the evidence before us, we find that Petitioner has demonstrated by a preponderance of the evidence that claims 1–3, 5–6, 19–21, 23, 26–27, 30–31, and 33 are unpatentable under § 103(a) as obvious over the combination of Eyal and Wiser.

F. Obviousness over Madison and Holtz

Petitioner asserts that claims 1–3 and 6 are unpatentable under § 103(a) as obvious over Madison and Holtz. Pet. 54–80. Patent Owner counters that Madison and Holtz are not prior art. PO Resp. 26–31. Patent Owner also argues that the combination does not teach certain claim limitations, and that there is no motivation to combine Madison with Holtz. *Id.* at 48–60, 66–71. For the reasons stated below, we find that Petitioner has demonstrated by a preponderance of the evidence that claims 1–3 and 6 would have been obvious over Madison and Holtz. We do not find Patent Owner’s arguments and Mr. Adams’s testimony refute Petitioner’s showing. Our analysis below focuses on the disputed claim elements.

1. Priority date of claims 1–3 and 6

Petitioner asserts that the claims of the '673 patent are entitled to a priority date no earlier than January 18, 2002. Pet. 14–18. Petitioner argues that Madison and Holtz are prior art because Madison was filed on June 6, 2001, and Holtz was filed on April 18, 2001. *Id.* at 54, 57. Petitioner's priority diagram is reproduced below with highlighting added. *Id.* at 14–15.



As the diagram above shows, in Priority Chain A, the '673 patent claims priority to U.S. Application No. 11/680,407 (“the '407 application”), which is a divisional application of U.S. Application No. 10/051,406 (yellow) (“the '406 application,” Ex. 1012), which is a continuation-in-part (“CIP”) application of U.S. Application No. 09/838,993 (blue) (“the '993 application,” Ex. 1010), which is a CIP application of U.S. Patent Application No. 09/766,519 (blue) (“the '519 application”). In Priority Chain B, the '673 patent claims priority to the '044 application (green) through the '407 application and the '406 application.

a. Principles of Law

“It is elementary patent law that a patent application is entitled to the benefit of the filing date of an earlier filed application only if the disclosure of the earlier application provides support for the claims of the later application, as required by 35 U.S.C. § 112.” *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1306 (Fed. Cir. 2008); *New Railhead Mfg., L.L.C. v. Vermeer Mfg. Co.*, 298 F.3d 1290, 1294 (Fed. Cir. 2002); *Lucent Techs., Inc. v. Gateway, Inc.*, 543 F.3d 710, 718 (Fed. Cir. 2008) (“Patent claims are awarded priority on a claim-by-claim basis based on the disclosure in the priority applications.”). The test for determining compliance with the written description requirement under § 112 ¶ 1 is whether the original disclosure of the earlier-filed application reasonably would have conveyed to one with ordinary skill in the art that the inventor had possession the claimed subject matter at the time of the earlier-filed application. *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc).

b. Priority Chain A: the '993 application and the '519 application

Claim 1 requires a communication device capable of using the instructions provided in a play script to obtain the requested media, and “one or more instructions for use by the communication device . . . to enable” the communication device to obtain the requested media and the other media. Each of dependent claims 2, 3, and 6 also requires these “instructions” elements. It is undisputed that the '993 application and the '519 application have the same disclosure. *See, e.g.*, PO Resp. 29. Petitioner argues that the '993 application does not disclose a “play script” with “instructions,” as

required by claim 1, because it merely describes a list of named media references, such as a URL, or other media items that are to be streamed to the viewer. Pet. 15–16 (citing Ex. 1010 ¶¶ 52–53).

Patent Owner relies on the “presentation identification” disclosed in the ’993 application⁶ and the ’519 application to provide support for the claimed “instructions” because they disclose that “the RTSMS 106 transmits to the viewer 116 the *play list with each entry on the play list having the host name of the NRP, the reservation number, and the presentation identification*,” and the “presentation ID is also used together with the URL to obtain media.” PO Resp. 26–30; Ex. 2012 ¶ 171; Sur-reply 8–9.

Upon review of the evidence before us, we agree with Petitioner that neither the ’993 application nor the ’519 application provides support for the claimed “instructions” and “play script.” Patent Owner’s arguments are conclusory, not supported by either application’s disclosure. Notably, these applications (Exs. 1010, 2014–2018) merely disclose providing a presentation ID in a play list or a reservation, but they are silent as to how the presentation ID is an instruction used by the communication device to obtain the requested media. It is well settled that “[e]ntitlement to a filing date does not extend to subject matter which is not disclosed but would be obvious over what is expressly disclosed.” *Lockwood v. American Airlines*,

⁶ Patent Owner relies on U.S. Patent No. 7,054,949 (“the ’949 patent”) that issued from the ’993 application. We assume that there are no meaningful differences between the original disclosure of the ’993 application and the ’949 patent for purposes of this Decision.

Inc., 107 F.3d 1565, 1571–72 (Fed. Cir. 1997). “It is not sufficient for purposes of the written description requirement of § 112 that the disclosure, when combined with the knowledge in the art, would lead one to speculate as to modifications that the inventor might have envisioned, but failed to disclose.” *Id.* Nor could the claimed subject matter have been “envisioned” from the earlier disclosure to establish written description support. *Goeddel v. Sugano*, 617 F.3d 1350, 1356 (Fed. Cir. 2010).

In addition, the presentation ID merely identifies the presentation. Ex. 2017, 2:24–25. The ’673 patent makes clear that the presentation itself, not the presentation ID, “may include special instructions, such as special media sequencing instructions, late binding media instructions, and/or special routing instructions.” Ex. 1001, 8:27–32. Therefore, Patent Owner’s argument that the presentation ID is an “instruction,” as required by claim 1, is not supported by the ’993 application or the ’519 application, and it is also inconsistent with the Specification of the ’673 patent. Further, the “playlist” disclosed in these prior applications does not include the claimed “instructions,” and thus, the “playlist” in these prior applications also does not provide support for the claimed “play script.”

For the foregoing reasons, we agree with Petitioner that neither the ’993 application nor the ’519 application provides adequate written support for the “play script” and “instructions,” as recited in claims 1–3 and 6.

c. Priority Chain B: the ’044 application

Petitioner argues that the ’044 application fails to provide support for the claimed “play script” and “instructions.” Pet. 15. Petitioner notes that

the instructions in the presentation script “about how to dynamically change the content,” as disclosed in the ’044 application, are not the claimed “instructions” because they are not transmitted to the user, as required by claim 1. *Id.* at 17–18.

In its Sur-reply, Patent Owner argues for the first time that the ’044 application provides support for the claimed subject matter of claim 1.

Patent Owner only proffers the following two arguments:

The ’044 application also uses the term ‘*play script*’ and proves the inventor possessed the claimed play script as of January 19, 2001. Ex.-1011, 18–20.

The ’044 discloses the claimed instructions and proves the inventor possessed the claimed *play script* as January 19, 2001. Ex-1011, 29 (“the *presentation script* contains . . . instructions about how to dynamically change the content”), 22.

Sur-reply 8–9 (emphases added).

Patent Owner’s arguments are improper because no new arguments are permitted in a sur-reply. *See* 37 C.F.R. § 42.23(b); Consolidated Trial Practice Guide⁷ at 74; *see also* 84 Fed. Reg. 64,280 (Nov. 21, 2019).

In any event, Patent Owner’s arguments are unavailing. Patent Owner improperly conflates the “play script” with “presentation script.”

Patent Owner relies on the ’044 application’s “play script” to provide support for the claimed “play script,” but relies on the instructions in the “presentation script” to provide support for the claimed “instructions.”

⁷ Available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>.

Sur-reply 8–9. To be clear, claim 1 requires a “play script, comprising . . . one or more instructions.” Ex. 1001, 51:3–24.

It is well settled that “[e]ntitlement to a filing date does not extend to subject matter which is not disclosed but would be obvious over what is expressly disclosed.” *Lockwood*, 107 F.3d at 1571–72. “It is not sufficient for purposes of the written description requirement of § 112 that the disclosure, when combined with the knowledge in the art, would lead one to speculate as to modifications that the inventor might have envisioned, but failed to disclose.” *Id.*

Notably, the ’044 application does not disclose a “play script” having “instructions,” used by the communication device “to obtain at least one portion of the requested media,” as required by claim 1. Although the “play script” in the ’044 application includes a presentation ID, a presentation ID merely identifies the presentation. Ex. 1011, 19. The ’673 patent makes clear that the presentation itself, not the presentation ID, “may include special instructions, such as special media sequencing instructions, late binding media instructions, and/or special routing instructions.” Ex. 1001, 8:27–32. Moreover, Patent Owner does not allege that the presentation ID disclosed in the ’044 application provides support for the claimed “instructions.” Thus, the ’044 application’s “play script” does not provide support for the claimed “play script.”

Furthermore, the instructions in the “presentation script” are not the claimed “instructions” because the “presentation script” is stored in the reservation cache, not transmitted to the user’s device as required by

claim 1. Ex. 1011, 28–29. Moreover, those instructions in the “presentation script” are not used by the communication device “to obtain at least one portion of the requested media,” as required by claim 1, but to “change the content (e.g., ads based on demographics) and interstitial content insertion (aka, interstitial ad insertion).” *Id.*

For the foregoing reasons, we determine that the ’044 application does not provide adequate written description support for the “play script” and “instructions,” as required by claims 1–3 and 6.

d. Conclusion on priority date of claims 1–3 and 6

For the reasons stated above, we find that Petitioner has shown that claims 1–3 and 6 of the ’673 patent are not entitled to the benefit of the filing dates of the ’993 application, the ’519 application, or the ’044 application. These challenged claims are not entitled to a priority date earlier than January 18, 2002. Accordingly, Madison and Holtz qualify as prior art against claims 1–3 and 6 of the ’673 patent.

2. Whether Madison in view of Holtz renders claims 1–3 and 6 obvious

Petitioner provides detailed explanations to account for all of the claim limitations recited in claims 1–3 and 6 and reasons to combine the teachings of Madison and Holtz. Pet. 54–80. In support of its arguments, Petitioner directs our attention to Dr. Houh’s Declaration. Ex. 1003. Patent Owner argues that Madison and Holtz fail to disclose certain claim limitations, and that Petitioner fails to articulate a reason to combine the prior art teachings, citing to the Declaration of Mr. Adams for support. PO

Resp. 48–60, 66–71 (citing Ex. 2012). For the reasons stated below, we find that Petitioner has demonstrated by a preponderance of the evidence that claims 1–3 and 6 would have been obvious over Madison in view of Holtz. We do not find Patent Owner’s arguments and Mr. Adams’s testimony refute Petitioner’s showing. Our analysis below focuses on the disputed claim elements.

a. “At least one portion of the requested media” and “other media”

Claim 1 requires a “computing device” to receive a request for media from a “communication device” that is capable of obtaining “at least one portion of the requested media” and “one other media.” Ex. 1001, 50:53–59. Claim 1 also requires identifications of “the at least one portion of the requested media” and “one other media.” *Id.* at 51:4–6. Claim 6 recites “identifying one or more *other portions* of the requested media.” *Id.* at 51:55–56 (emphasis added).

Petitioner asserts that Madison in view of Holtz discloses these claim elements. Pet. 61–63, 68–71, 79–80. Petitioner relies on Madison to disclose a request for “a playlist” (the “requested media”) “comprising multiple secure content files” (“portions of the “requested media”) and a web server and playlist server (which together constitute the “computing device”). *Id.* (citing Ex. 1007 ¶¶ 72, 80 88, 89, Fig. 8). Petitioner explains that, in response to the request, the playlist server generates a redirector file containing links to multiple portions of the requested media, and “determine[s] which content files are part of the requested playlist and the order of the content files in the playlist.” *Id.* (citing Ex. 1007 ¶¶ 88, 89).

Petitioner asserts that the redirector file identifies portions of the requested media by including the file names of the content files and also includes advertisements (the claimed “other media”). *Id.* (citing Ex. 1007 ¶¶ 36, 82, 90, 95; Ex. 1017, 4; Ex. 1018, 1–2). We agree with Petitioner and, for the reasons given, find that Madison in view of Holtz teaches the aforementioned elements of the aforementioned elements of claims 1 and 6.

Patent Owner counters that Madison “does not disclose . . . *portions* of requested media (e.g., a portion of a movie or song).” PO Resp. 55 (citing Ex. 2012 ¶¶ 286–288). Patent Owner argues that “the claims of the ’673 patent are directed to a method of streaming requested media in *portions* (i.e., portion-by-portion/one or more *portions* at a time), not the entire media all together.” *Id.*; *see also id.* at 9–12; Sur-reply 1–7, 20–21. Patent Owner also argues that “Madison *teaches away from* using *portions* of requested media” because each file referenced in the redirector file is the “requested media.” PO Resp. 55; Sur-reply 20–21.

At the outset, Patent Owner incorrectly assumes that all of the challenged claims require “streaming requested media *in portions*.” PO Resp. 9–12, 55; Sur-reply 1–7, 20–21; Ex. 2012 ¶¶ 286–288. Patent Owner admits that only claim 6 recites “identifying one or more *other portions* of the requested media.” *Id.* at 35. Through its arguments, Patent Owner implicitly construes the claim term “at least one portion of the requested media” to exclude the entirety of the “requested media” or to require that the “requested media” be broken up into portions. For the reasons discussed above in Section II.A.1, we decline to adopt Patent Owner’s construction.

However, even if we were to apply Patent Owner's construction, we still would find that Petitioner has shown sufficiently that Madison in view of Holtz teaches the claim elements at issue for the reasons stated below.

Notably, Patent Owner's arguments also improperly rest on the premise that the "requested media" must be a single entire piece of media (e.g., an entire movie). PO Resp. 55; Sur-reply 20–21; Ex. 2012 ¶¶ 286–288. The '673 patent makes clear that the "requested media" may be a single media item or multiple media items (e.g., a program with multiple media items), and that "[m]edia may include one or more *media clips or a part of a media clip*." Ex. 1001, 3:47–49, 4:10–20, 18:30–32, 19:10–11 (emphasis added). The Specification discloses that the "content owner may create a program having one or more media items" including "*a media clip for a movie and an advertisement*," and that a "viewer may desire to receive one or more of the media identified in the program." *Id.* (emphasis added). Hence, the "requested media" may be "a media clip for a movie" or a program having a plurality of media items, not necessarily a single entire piece of media or an entire movie as Patent Owner alleges. Interpreting the "requested media" to require a single entire media item or an entire movie would be inconsistent with the Specification.

We also disagree with Patent Owner's arguments that Madison does not disclose portions of the requested media and Madison teaches away from using portions of the requested media. Patent Owner improperly assumes that each file referenced in Madison's redirector file is the "requested media," ignoring that Madison's teaching that the user requests "a playlist

comprising multiple secure content files.” PO Resp. 55; Sur-reply 20–21; Ex. 2012 ¶¶ 286–288; Ex. 1007 ¶¶ 72, 88. Notably, Madison expressly discloses that, although the embodiments have been discussed in the context of controlling access to a single item of content, “any of the foregoing embodiments may be utilized to control access to *a playlist comprising multiple secure content files.*” Ex. 1007 ¶¶ 72, 88. The playlist is the “requested media,” and the secure content files in the playlist are portions of the “requested media.” *Id.* The URLs in the exemplary ASX redirector file in Madison identifies multiple portions of the requested media. *Id.* ¶ 90.

For the foregoing reasons, we find that Petitioner has shown that Madison in view of Holtz discloses the aforementioned elements of claims 1 and 6.

b. Determining availability and “media selector”

Claim 1 requires (1) determining “whether the at least one portion of the requested media is available for streaming in accordance with at least one program comprising at least one media selector defining how to select at least one other media” (an advertisement), and (2) determining “the at least one other media based on the at least one media selector.” Ex. 1001, 50:60–67. Claim 2 requires that the media selector “comprises at least one rule” that used to determine “one other media.” *Id.* at 51:32–36.

Petitioner asserts that Madison in view of Holtz accounts for these claim elements. Pet. 59–60, 63–67, 76–77. Petitioner points out that Madison’s client management database “includes an Authorized User Table that correlates each end user, as identified by a unique end user ID, to one or

more authorized user group IDs.” *Id.* (citing Ex. 1007 ¶ 25). Petitioner also notes that “[i]n order for an end user to view a playlist, the end user must be identified as part of the authorized user group ID for that content file.” *Id.* (quoting Ex. 1007 ¶ 25). Petitioner explains that Madison’s playlist server acts as a media selector by creating a redirector file, which “contains a link to the requested content” and “advertisements.” *Id.* (citing Ex. 1007 ¶¶ 79, 82). But, Madison does not explicitly explain in detail how those advertisements are selected. Petitioner relies on Holtz to teach selecting advertisements based on the subject matter of the requested media. *Id.* (citing Ex. 1008, 7:17–20, 12:17–35, 11:63–66). Petitioner contends that Holtz’s “enhanced media server,” acts as the claimed “media selector defining how to select at least one other media” (targeted advertisements). *Id.* (citing Ex. 1008, 7:36–51, 8:13–26, 13:21–31, 16:34–53). Petitioner also contends that “[l]inking advertisements according to the subject of the program is processing a rule to determine the media selected for inclusion in the program.” *Id.* Dr. Houh testifies that a relevant artisan would have understood that Holtz’s teaching would have improved Madison “by allowing customized advertisements directed to the interests of users, which would increase the effectiveness of advertisements and allow a system to generate revenue more effectively.” Ex. 1003 ¶¶ 275–288, 311–316. We are persuaded by Petitioner’s showing that Madison in view of Holtz teaches the aforementioned elements of claims 1 and 2.

Patent Owner advances several arguments. PO Resp. 49–54, 60. First, Patent Owner argues that Madison does not disclose “portions” of

media. *Id.* at 49. We address this argument above and find it unavailing for the reasons stated in Section II.F.2.a.

Second, Patent Owner argues that Madison does not disclose determining media availability because “a user being authorized to obtain media does not equate to media being available for streaming.” PO Resp. 49–51 (citing Ex. 2012 ¶¶ 271–276); Sur-reply 19–20. Patent Owner alleges that Dr. Houh admitted that even if a user is authorized to obtain media, there are instances when media may not be available. PO Resp. 49–51 (citing Ex. 2019, 313:20–316:16).

Patent Owner’s arguments are unavailing. Patent Owner’s reliance on Dr. Houh’s testimony is misplaced. Dr. Houh merely testified that “I don’t know why a system would authorize access to something that’s not available” and that “in a system, it does not make sense to authorize access to something that’s not available.” Ex. 2019, 313:20–316:16. That testimony does not support Patent Owner’s arguments.

More importantly, we agree with and credit Dr. Houh’s testimony that “Madison teaches that the web server determines if the requested media is available by verifying with a client management database if the user is authorized to obtain the requested content.” Ex. 1003 ¶ 273. Madison’s content management database “includes tables containing ‘playlist’ information.” Ex. 1007 ¶ 24, Figs. 1–2. Madison discloses that “[a] client’s playlist is generally a group of one or more *content files* logically associated for the purpose of *being made available as a group*,” and that “[e]ach *content file* identified as part of a playlist can also *be made available*

individually.” *Id.* (emphases added). Madison also discloses that “[e]ach record further includes playlist details, including . . . the authorized user group ID for the playlist,” and that “[i]n order for an end user 102 to view a playlist, the end user 102 must be identified as part of the authorized user group ID for that content file.” *Id.* ¶¶ 24–25. Madison further discloses that the media server provides the end user access to the content if the stream request is both authentic and within the security interval. *Id.* ¶ 59. Accordingly, we agree with Petitioner that Madison teaches determining the availability of the requested media, as required by claim 1.

Third, Patent Owner argues that neither the “makeplaylist” program nor the playlist server in Madison performs the claimed function of a “media selector.” PO Resp. 50–54, 60. Patent Owner also contends that Madison’s “makeplaylist” program cannot comprise a playlist server. *Id.*

However, one cannot show nonobviousness by attacking references individually where the ground of unpatentability is based on combinations of references, as here. *Keller*, 642 F.2d at 426. Instead, the test for obviousness is whether the references, taken as a whole, would have suggested the claimed subject matter to a person of ordinary skill in the art at the time the invention was made. *See Merck*, 800 F.2d at 1097.

As discussed above, Madison discloses a playlist server that generates a redirector file, containing multiple portions of the requested media, and “determine[s] which content files are part of the requested playlist and the order of the content files in the playlist.” Ex. 1007 ¶¶ 79, 81, 88–90. The redirector file also includes links to advertisements. *Id.* ¶ 82. But Madison

does not explicitly explain in detail how those advertisements are selected. Petitioner relies on Holtz to teach that “[a]dvertising is linked to each segment of each customized program so that the user when viewing the customized programming also views the associated advertising” and that the “advertising for each program is linked to the subject matter of the program.” Pet. 59–60, 64–67, 76–77 (citing Ex. 1008, 7:17–20, 11:63–66, 12:17–35). Petitioner contends that “[l]inking advertisements according to the subject of the program is processing a rule to determine the media selected for inclusion in the program.” *Id.*

Dr. Houh testifies that a relevant artisan would have understood that Holtz’s teaching would have improved Madison “by allowing customized advertisements directed to the interests of users, which would increase the effectiveness of advertisements and allow a system to generate revenue more effectively.” Ex. 1003 ¶¶ 275–288, 311–316. As Dr. Houh notes, Holtz explains the benefit of including targeted advertisements in that “[t]he linked advertisements enable the present invention to be used as a profit generator for various participants involved in producing and distributing the enhanced multimedia.” *Id.* (citing Ex. 1008, 4:19–22). Dr. Houh also noted that including targeted advertisements in streaming media was well known in the art at the time of the invention. *Id.* ¶ 280 (citing Ex. 1008; Ex. 1044; Ex. 1045); *see also id.* ¶¶ 85–85 (citing Ex. 1036, 3–4; Ex. 1037; Ex. 1038); Ex. 1005, 13:1–8; Ex. 1008, 12:19–20. We credit Dr. Houh’s testimony as it is consistent with evidence of record. And we are persuaded that, in view of Holtz’s teachings, a relevant artisan would have implemented the

functionality of selecting advertisements based on the subject matter of the requested media in Madison's playlist server.

Fourth, Patent Owner argues that Madison's playlist server is not a media selector because a relevant artisan would have understood that selecting "other media" is resource intensive and would be performed by a separate server. PO Resp. 51–52 (citing Ex. 2012 ¶¶ 277–278). Patent Owner also contends that Dr. Houh admitted targeted advertisements can be selected by a separate server. *Id.* (citing Ex. 2019, 352:9–20).

Patent Owner's arguments are based on speculation. Patent Owner's reliance on Dr. Houh's testimony is misplaced because Dr. Houh was answering a hypothetical question that is not related to the systems disclosed in Madison or Holtz. Ex. 2019, 352:9–20. Neither Madison nor Holtz suggests that the targeted advertisements are selected by a separate server. Rather, Madison's playlist server already performs the functions of generating a redirector file containing multiple portions of the requested media, and "determin[ing] which content files are part of the requested playlist and the order of the content files in the playlist." Ex. 1007 ¶¶ 79, 81, 88–90). Madison's redirector file also includes advertisements. *Id.* ¶ 82. As discussed above, we agree with Petitioner that, in view of Holtz's teachings, a relevant artisan would have implemented the functionality of selecting advertisements based on the subject matter of the requested media in Madison's playlist server. Pet. 59–60, 64–67, 76–77; Ex. 1003 ¶¶ 275–288, 311–316. Thus, we do not agree with Patent Owner that selecting advertisement would be performed by a separate server.

Fifth, Patent Owner argues that an ordinarily skilled artisan would not have been motivated to incorporate Holtz's teachings into Madison's playlist server to provide customized advertisements. *Id.* at 53–54. We find this argument unavailing for the reasons stated below in Section II.F.2.g.

Finally, Patent Owner argues that Petitioner fails to identify any rule used by the selector because targeted advertisements “says nothing about whether the purported media selector has rules to select ‘other media.’” PO Resp. 60. Patent Owner contends that Holtz contains no disclosure “of how specific advertisements are chosen under certain rules.” *Id.*

Patent Owner's arguments are unavailing. Holtz teaches that “[a]dvertising is linked to each segment of each customized program so that the user when viewing the customized programming also views that associated advertising.” Ex. 1008, 7:17–20, 11:63–66. Holtz also discloses that the “advertising for each program is linked to the subject matter of the program.” *Id.* at 12:17–35. We agree with Petitioner that “[l]inking advertisements according to the subject of the program is processing a rule to determine the media selected for inclusion in the program.” Pet. 77. For example, if the user requests a family show, Madison's playlist server, as modified in view of Holtz, would select family-friendly advertisements. Dr. Houh testifies that a relevant artisan would have understood that Holtz's teaching would have improved Madison “by allowing customized advertisements directed to the interests of users, which would increase the effectiveness of advertisements and allow a system to generate revenue more effectively.” Ex. 1003 ¶¶ 275–288, 311–316. Therefore, we find that

Madison in view of Holtz teaches a media selector comprising a “rule” that is used to determine advertisements, as required by claim 2. Accordingly, Petitioner has shown sufficiently that Madison in view of Holtz teaches the aforementioned elements of claims 1 and 2.

c. “Play script”

Petitioner asserts that Madison in view of Holtz teaches generating a play script based on one or more capabilities of the communication device, as required by claim 1. Pet. 67–68. Petitioner relies on Madison’s redirector file to teach a “play script” as it includes protocol information allowing the device to obtain media. *Id.* (citing Ex. 1007 ¶¶ 80–82).

Patent Owner counters that the protocol information “has nothing to do with whether the redirector file is ‘generating’ based on capabilities of the communication device.” PO Resp. 54 (citing Ex. 2012 ¶ 285); Sur-reply 22. According to Patent Owner, “protocol information” is not a “capability” of the communication device, and that “a play script happens to *work with* a communication device does not mean that it was generated ‘based on’ capabilities of the communication device.” Sur-reply 22.

We are persuaded by Petitioner’s showing, and Patent Owner’s arguments are unavailing. As Dr. Houh testifies, Madison’s redirector file is customized for the user’s communication device because it includes the protocol information, a hostname of the media server, the file name, the stream ID number, the ticket number, and a user ID, as well as “other information such as metadata for the content file, or other, non-secure files, such as advertisements.” Ex. 1003 ¶ 209 (citing Ex. 1007 ¶¶ 80–82).

We agree with and credit Dr. Houh’s testimony that the redirector file is generated based on the capabilities of the user’s device, and the URLs with “mms” protocol would not be included if the user’s device did not support that protocol. Ex. 1007 ¶¶ 80–82. Indeed, Madison expressly discloses that “web server 106 provides a website accessible by the end user 102” and “[t]he website, in turn, includes links that can be activated by the end users 102 for accessing streaming media content residing on the streaming media server 104.” *Id.* ¶ 20. Thus, we are persuaded that Petitioner has shown that Madison in view of Holtz teaches a “play script” as required by claim 1.

d. “Reservation identification” and “reservation”

Petitioner asserts that Madison in view of Holtz teaches a “reservation identification” recited in claim 1 and a “reservation” recited in claim 3. Pet. 71, 77–79 (citing Ex. 1003 ¶¶ 296–298). Petitioner relies on Madison’s ticket identification in the redirector file to teach a “reservation identification” and Madison’s ticket to teach a “reservation” because Madison’s resources are reserved only for those streams with a proper ticket ID. *Id.* Petitioner notes that Madison’s ticket is generated utilizing “the private key, stream ID, end user ID, the current time and a hash algorithm” and the media server uses the ticket to limit content access to authorized users. *Id.* (citing Ex. 1007 ¶¶ 28, 34, 81, 90, 95). We agree with Petitioner and, for the reasons given, find that Madison teaches the claimed “reservation” and “reservation identification.”

Patent Owner counters that Madison does not disclose a “reservation identification” or a “reservation” that is used for reserving system resources.

PO Resp. 56–57, 90; Sur-reply 21–22. In Patent Owner’s view, Madison’s ticket “is simply an identifier for *authorizing* a user to receive media” and “[u]sing a ticket solely for authorization (solely to determine whether a user should be provided with media) is not the same as reserving system resources.” PO Resp. 56–57, 90 (citing Ex. 2012 ¶¶ 280–290, 303).

Patent Owner’s arguments are unavailing. To the extent that Patent Owner argues that a reservation excludes media, we find that argument to be inconsistent with the definition in the Specification that defines the term “reservation” to encompass “media,” as discussed above in Section II.A.4. Ex. 1001, 10:34–37. In addition, Madison’s ticket is generated utilizing “the private key, stream ID, end user ID, the current time and a hash algorithm” and the media server uses the ticket to limit content access to authorized users and to verify that the end user is allowed to access the requested media. Ex. 1007 ¶¶ 28, 34, 81, 90, 95. Indeed, Madison’s “streaming media server 104 either denies or provides access to the requested streaming media content based on a comparison of the tickets as generated by the streaming media server 104 and web server 106.” *Id.* ¶ 28. Madison discloses that “[i]f the tickets do not match, then it is likely that the stream request is not authentic and/or has expired (i.e., was generated by the media server 104 at a time outside of the security interval as measured from the time of the user’s request),” and that “[a]ccordingly, the media server 104 denies access to the requested content.” *Id.* ¶ 58, Fig. 5. Therefore, a relevant artisan would have recognized that the media and other system resources on Madison’s media server are reserved for the authorized user within the security interval.

Thus, we find that Petitioner has shown that Madison in view of Holtz discloses the claimed “reservation identification” and “reservation.”

e. “At least one resource other than the at least one computer device”

Claim 1 recites “URL including at least one identification of at least one resource other than the at least one computing device available to facilitate streaming of at least one of the at least one portion of the request media and the at least one other media.” Ex. 1001, 51:9–18. Petitioner relies upon Madison to teach a URL including an identification of a “resource” available to facilitate streaming the requested media and other media, as required by claim 1. Pet. 70–74. Petitioner explains that Madison’s ASX redirector file “may include other information, such as . . . advertisements,” and that advertisement using ASX files was well known in the art. *Id.* (citing Ex. 1007 ¶ 82; Ex. 1018, 1–2; Ex. 1017, 4). Petitioner also explains that each URL in Madison’s redirector file includes the Hostname of the media server, which facilitates streaming the requested media or advertisement. *Id.* (citing Ex. 1007 ¶¶ 81, 90, 91, Fig. 8).

Patent Owner counters that Petitioner fails to show the location of the “resource” from which the user’s device would receive the “other media.” PO Resp. 57. Patent Owner’s argument is unavailing. Madison’s redirector file includes metadata for advertisements (the “other media”), including URLs identifying a media stream server. Ex. 1007 ¶¶ 81, 82, 90, 91. As shown in Figure 8 of Madison, the system includes web server 606, playlist server 610, and streaming media server 604. *Id.* at Fig. 8. Streaming media server 604 is a “resource other than the computer device” and facilitates

streaming the “requested media” and “other media” because, as Madison discloses, “[t]he media player then makes a series of calls to the streaming media server 604, one of each of the URL links contained in the redirector file.” Ex. 1007 ¶ 91. Therefore, we find that Petitioner has shown that Madison in view of Holtz discloses a “resource” as required by claim 1.

f. “Instructions”

Petitioner relies on Madison’s ASX redirector file to teach “instructions” used together with a URL and reservation identification to enable the user’s device to obtain the “requested media” and “other media,” as required by claim 1. Pet. 74–75 (citing Ex. 1007 ¶ 82; Ex. 1003 ¶¶ 303–304). Petitioner notes that a relevant artisan would have known that ASX files, like those in Madison, may include instructions that relate to sequencing and advertisement insertion, the types of instructions recited in claim 26. *Id.* We agree with Petitioner.

Patent Owner advances several arguments. First, Patent Owner argues that Madison does not disclose a “reservation identification.” PO Resp. 58. As discussed in Section II.F.2.d, we reject this argument.

Second, Patent Owner argues that “URLs cannot be the claimed instructions because the claims require ‘instructions’ in addition to the URLs.” PO Resp. 59; Sur-reply 22. However, Patent Owner’s argument improperly rests on the premise that instructions cannot be part of a URL. As discussed above in Section II.E.5, the claims do not require the instructions to be separate from the URLs for obtaining media. The ’673 patent discloses that “there are many possible ways of formatting the

URLs,” and that a URL may include other claim elements, such as the identification of the requested media and the reservation identification. Ex. 1001, 8:61–64, 10:28–33, 24:45–47; Ex. 1011, 18. Mr. Adams also admitted that formatting the instructions “as a part of the URL string doesn’t actually . . . change[] anything . . . you’re still transmitting the instructions,” and that “[i]t’s a formatting difference, quite frankly” and “[s]o I think actually both satisfy the claims in my opinion.” Ex. 1081, 180:22–181.5. Moreover, a relevant artisan would have recognized that the ASX redirector files, in Madison and Holtz, include instructions relate to sequencing and advertisement insertion, the types of instructions recited in claim 26.

Third, Patent Owner argues that “[s]cheduling, where/when to insert advertising/other clips and instructions for playing pertains to *how* media is *presented* to the viewer.” PO Resp. 59. According to Patent Owner, “the order of the URLs is not an instruction used to obtain media.” Sur-reply 22. Patent Owner also argues that Petitioner and Dr. Houh admit that “instructions pertaining to *how* media is *presented* are not the same as instructions used to *obtain* media.” PO Resp. 59 (citing Pet. 18; Ex. 2019, 290:12–291:8; Ex. 2012 ¶ 299).

However, Patent Owner implicitly construes the term “instructions” to exclude those instructions recited in claim 26. As discussed above in Section II.A.2, we decline to adopt Patent Owner’s construction and construe the claimed “instructions” to encompass the types of instructions recited in claim 26. Moreover, Mr. Adams admitted that sequencing instructions are related to how the media is obtained because “[i]t would be

normal to obtain the portions or media clips in the order in which they're going to be played.” Ex. 1081, 131:14–19.

Patent Owner's reliance on Petitioner's statement and Dr. Houh's testimony is misplaced. As discussed above in Section II.E.5, Petitioner's statement and Dr. Houh's testimony are related to the '044 application, not the prior art's disclosure. Pet. 18 (citing Ex. 1011, 29); Ex. 2019, 288:4–10.

More importantly, we agree with and credit Dr. Houh's testimony that a relevant artisan would have known that ASX files, like those in Madison, include instructions for obtaining the media. Ex. 1003 ¶¶ 303–304.

Dr. Houh testifies that, as an example of the knowledge of such an artisan, Microsoft's 1999 article “All About ASX Files” explains that when a user's device receives an ASX file, it launches Windows Media Player, which “looks in the ASX for instructions on where to get the ASF file, and then starts the stream playing.” *Id.* (citing Ex. 1017, 1). The article also explains that ASX playlists can include other types of instructions, including “allow[ing] you to schedule content to play in succession, or to insert advertising or special interest clips into a stream after a specific period of time or at a specific point.” *Id.* (citing Ex. 1017, 4). As another example of the knowledge of such an artisan, Holtz explains that “[t]he ASX metafile is a list of all of the files/stories requested, including video advertisements” and that “[a] complex metafile can contain . . . *instructions for playing the files or streams.*” *Id.* (citing Ex. 1008, 8:65–9:3, 9:11–14) (emphasis added). Therefore, we determine that Petitioner has shown that Madison in view of Holtz teaches the “instructions” recited in claim 1.

g. Reasons to combine the teachings of Madison and Holtz

As discussed above, Madison discloses a playlist server that, in response to a request for media, generates an ASX redirector file, containing multiple portions of the requested media, and “determine[s] which content files are part of the requested playlist and the order of the content files in the playlist.” Ex. 1007 ¶¶ 79, 81, 88–90. The redirector file also includes advertisements. *Id.* ¶ 82. But, Madison does not explicitly explain in detail how those advertisements are selected.

Petitioner relies on Holtz to teach that “[a]dvertising is linked to each segment of each customized program so that the user when viewing the customized programming also views the associated advertising” and that the “advertising for each program is linked to the subject matter of the program.” Pet. 59–60, 64–67, 76–77 (citing Ex. 1008, 7:17–20, 11:63–66, 12:17–35). Petitioner contends that “[l]inking advertisements according to the subject of the program is processing a rule to determine the media selected for inclusion in the program.” *Id.* Dr. Houh testifies that a person of ordinary skill in the art would have understood that the teachings of Holtz would have improved Madison “by allowing customized advertisements directed to the interests of users, which would increase the effectiveness of advertisements and allow a system to generate more revenue more effectively.” Ex. 1003 ¶¶ 275–288, 311–316. Holtz also discloses that “[t]he linked advertisements enable the present invention to be used as a profit generator for various participants involved in producing and distributing the enhanced multimedia.” Ex. 1008, 4:19–22. We find that

Petitioner has articulated a sufficient reason to add the functionality of selecting advertisements to be included in an ASX redirector file based on the subject matter of the requested media or the interests of the user, as taught by Holtz, in Madison's playlist server.

Patent Owner counters that a relevant artisan would not have been motivated to combine Madison and Holtz, advancing two arguments. PO Resp. 66–71. First, Patent Owner argues that “the two systems are *fundamentally different*.” *Id.* at 66–70 (citing Ex. 2012 ¶¶ 202–217). According to Patent Owner, “[i]ncorporating Holtz's enhanced media server into Madison would fundamentally change Madison” because “Madison would no longer be the distributed system that is disclosed, and a single point of failure would be introduced into Madison.” *Id.* Patent Owner contends that Madison's system does not customize presentations. *Id.* Patent Owner also avers that Madison's ticket “would need to be modified to contain either a URL of the stream server, the IM server or the Ad server (Holtz Figure 1), and much of the utility of Holtz, such as providing a media presentation with media and other media (i.e. ads), would be lost.” *Id.*

Patent Owner's arguments are unavailing. “The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference.” *Keller*, 642 F.2d at 425. “Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.” *Id.*

Madison's system includes a web server, a database, a play list server, and a streaming media server. Ex. 1007, Figs 1, 6, 8. Madison discloses

using the software on the playlist server to generate an ASX redirector file, which include links to the requested media and advertisements. *Id.*

¶¶ 79–82, 90. But, Madison does not explicitly explain in detail how those advertisements are selected. *Id.*

Holtz teaches that “[a]dvertising is linked to each segment of each customized program so that the user when viewing the customized programming also views the associated advertising.” Ex. 1008, 7:17–20, 11:63–66. Holtz also discloses that the “advertising for each program is linked to the subject matter segment of the program.” *Id.* at 12:17–35. Further, Holtz discloses the benefit of targeted advertisements in that “[t]he linked advertisements enable the present invention to be used as a profit generator for various participants involved in producing and distributing the enhanced multimedia.” Ex. 1008, 4:19–22.

We agree with Dr. Houh that “[l]inking advertisement according to the subject of the program is processing a rule to determine the media selected for inclusion in the program.” Ex. 1003 ¶¶ 275–288, 311–316. Dr. Houh testifies that a relevant artisan would have understood that the teachings of Holtz would have improved Madison “by allowing customized advertisements directed to the interests of users, which would increase the effectiveness of advertisements and allow a system to generate more revenue more effectively.” *Id.* We credit Dr. Houh’s testimony as it is consistent with the prior art of record.

Implementing the functionality of selecting advertisements based on the subject matter of the requested media in Madison’s playlist server, in

view of Holtz, would not need to change the system architecture of Madison, as Patent Owner alleges. Madison's playlist server already provides the functionality of generating an ASX redirector file that includes links to the requested media and advertisements. Ex. 1007, ¶¶ 79–82, 90, Figs. 1, 6. Therefore, Patent Owner argument that Madison and Holtz disclose “*fundamentally different*” systems is unavailing. PO Resp. 66–70.

Finally, Patent Owner argues that Madison teaches away from using a “media selector” because “there is nothing in Madison that indicates that there is any need to select ‘other media’ that is customized or targeted to a user.” PO Resp. 70–71 (citing Ex. 2012 ¶¶ 218–220).

“A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *Gurley*, 27 F.3d at 553. Here, nothing in Madison discourages an ordinarily skilled artisan from implementing a media selector for targeted advertising. Indeed, Patent Owner admits that Madison is silent as to targeted advertising. PO Resp. 70–71. The “mere disclosure of alternative designs does not teach away.” *Fulton*, 391 F.3d at 1201. Therefore, Patent Owner's assertion of teaching away is unavailing.

More significantly, “if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.” *KSR*, 550 U.S. at

417. Here, the evidence shows that implementing a media selector for targeted advertising is not beyond the skill of a pertinent artisan. For example, if the user requested family shows, Madison's playlist server, as modified, would select family-friendly advertisements. Dr. Houh testifies that including targeted advertisements in streaming media was well known in the art at the time of the invention. Ex. 1003 ¶¶ 85–86, 280 (citing Ex. 1008; Ex. 1044; Ex. 1045 Ex. 1036, 3–4; Ex. 1037; Ex. 1038); Ex. 1005, 13:1–8; Ex. 1008, 12:19–20. Holtz also discloses the benefit of targeted advertisements in that “[t]he linked advertisements enable the present invention to be used as a profit generator for various participants involved in producing and distributing the enhanced multimedia.” Ex. 1008, 4:19–22. We agree with Petitioner that Madison's use of Microsoft ASX files would make it suitable for customization, as demonstrated by both Holtz's use of ASX files and Microsoft's own documentation of how ASX files can be customized, particularly for targeted advertisements. Reply 26; Ex. 1008, 9:4–20; Ex. 1017, 1–4; Ex. 1018, 1.

For the foregoing reasons, we find that Petitioner has articulated a sufficient reason why a relevant artisan, in light of Holtz, would have been motivated to implement the functionality of selecting targeted advertisements in Madison's playlist server. *KSR*, 550 U.S. at 416–417 (“The combination of familiar elements according to known elements is likely to be obvious when it does no more than yield predictable results.”). We do not find Patent Owner's arguments undermine Petitioner's reasoning.

3. Conclusion on Obviousness over Madison and Holtz

For the foregoing reasons, we find that Petitioner has shown sufficiently that the combination of Madison and Holtz teaches or suggests all of the limitations recited in claims 1–3 and 6, and Petitioner has articulated an adequate reason to combine the prior art teachings. As such, we find that Petitioner has established by a preponderance of the evidence that claims 1–3 and 6 are unpatentable under § 103(a) as obvious over Madison and Holtz.

III. CONCLUSION

For the foregoing reasons, we conclude that Petitioner has established by a preponderance of the evidence that claims 1–3, 5, 6, 19–21, 23, 26, 27, 30, 31, and 33 of the '673 patent are unpatentable.

IV. ORDER⁸

For the foregoing reasons, it is

ORDERED that claims 1–3, 5, 6, 19–21, 23, 26, 27, 30, 31, and 33 of the '673 patent are unpatentable; and

⁸ 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).

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.

In summary:

Claim(s)	35 U.S.C. §	Reference(s)	Claim(s) Shown Unpatentable	Claim(s) Not Shown Unpatentable
1–3, 5, 6, 19–21, 23, 26, 27, 30, 31, 33	103(a)	Eyal, Wiser	1–3, 5, 6, 19–21, 23, 26, 27, 30, 31, 33	
1–3, 6	103(a)	Madison, Holtz	1–3, 6	
Overall Outcome			1–3, 5, 6, 19–21, 23, 26, 27, 30, 31, 33	

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