

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TIKTOK INC.,
Petitioner,

v.

NTECH PROPERTIES, INC.,
Patent Owner.

Case IPR2024-01341
U.S. Patent No. 9,215,261

PATENT OWNER'S PRELIMINARY RESPONSE

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PATENT OWNER'S EXHIBIT LIST

Exhibit	Description
2001	Declaration of Dr. Michael T. Goodrich, Ph.D. in Support of Patent Owner's Preliminary Response
2002	Business Wire, "stimTV Network Wins Emmy Award from the National Television Academy; Technology & Engineering Emmy Award for Best Use of 'On Demand' Technology" (Jan. 10, 2007)
2003	National Television Academy, "National Television Academy Announces Emmy Winning Achievements: Honors Bestowed at 58th Annual Technology & Engineering Emmy Awards" (Jan. 8, 2007)
2004	Intentionally Omitted
2005	Intentionally Omitted
2006	Intentionally Omitted
2007	Intentionally Omitted
2008	Petition for <i>Inter Partes</i> Review of U.S. Patent No. 9,923,947, <i>TikTok, Inc. v. NTECH Properties, Inc.</i> , No. IPR2024-01343, Paper 2 (P.T.A.B. Aug. 23, 2024)
2009	Intentionally Omitted
2010	Digital Ocean Article, "Load balancing 101: Increasing the availability and resilience of your applications," available at https://www.digitalocean.com/resources/articles/load-balancing , dated Nov. 7, 2024
2011	M. Chesire, et al., "Measurement and Analysis of a Streaming-Media Workload," 3rd USENIX Symposium on Internet Technologies and Systems (2001)

Patent Owner's Preliminary Response
IPR2024-01341 (U.S. Patent No. 9,215,261)

Exhibit	Description
2012	"Amazon EC2 Instance Types," Amazon Web Services.com archived at Internet Wayback Machine on October 22, 2008 at https://web.archive.org/web/20081022140520/http://aws.amazon.com:80/ec2/instance-types/
2013	Petition for <i>Inter Partes</i> Review of U.S. Patent No. 8,145,704, <i>TikTok, Inc. v. NTECH Properties, Inc.</i> , No. IPR2024-01340, Paper 2 (P.T.A.B. Aug. 23, 2024)

I. INTRODUCTION

The Board should deny the Petition because the prior art of record does not disclose 1) initiating an individual customized media programming comprising media elements after a user's selection of a media feed and 2) providing by the aggregator to publisher client information.

Whitehead (Ex. 1003) discloses presenting a number of custom media channels to a user, but the user's selection of Whitehead's custom media channel does not cause that channel to be combined with other media elements, as recited in Claim 1. Whitehead's custom media channels are either pre-assembled or assembled in real time. In the embodiment where the channel is pre-assembled, the user's selection causes the system to play the pre-assembled channel, but it does not cause a media feed to assemble that channel with other media elements. In the embodiment where the channel is assembled in real time, there is no existing "media feed" to be combined with other media elements because the custom channel is not yet assembled.

Whitehead also fails to disclose an aggregator providing to a publisher client information because Petitioner maps Whitehead's profile server 165 providing profiles 160 to Whitehead's alleged publisher, not by the alleged aggregator as required by Claim 1.

Petitioner's Ground 3, based on Cristofalo (Ex. 1004) and Marcus '904 fares no better. Petitioner's own mapping of Cristofalo's transmission system as the alleged "publisher" is inconsistent with its admission that the transmission system does not generate media programming. Petitioner's proposed modifications is based on impermissible hindsight. In addition, Petitioner maps user selection as client information, violating the doctrine of claim differentiation and rendering claim elements superfluous, contrary to proper claim interpretation.

II. THE '261 PATENT

Marcus founded NTECH Properties, Inc., ("NTECH") in 2001 with the goal of fundamentally changing how media is created and presented to users. For this and other related work, Marcus has won a multitude of film, music, and advertising awards, including awards from the Cannes Film Festival, the American Advertising Awards, the Clio Awards, the New York Film and Television Festival, and the Madrid International Film Festival.

The '261 Patent came from Marcus' goal to fundamentally change how media is created and presented to users. Marcus developed stimTV, which broke ground as the first platform to offer videos personalized to the user. Ex. 2002 at 1-2. Launched in 2005, stimTV provided the world's first truly interactive and personally tailored media presentation network, where multiple personalized video streams could be concatenated and presented to the user without requiring the user to

manually select individual media assets. *Id.* at 1-2. This work was widely recognized in the industry, and in 2007, stimTV was awarded a Technology and Engineering Emmy Award for “Outstanding Innovation and Achievement in Advanced Media Technology for the best use of ‘On Demand’ Technology over the public (open) Internet,” beating out large conglomerates like ABC.com, AOL Music, and Turner Broadcasting for this honor. *Id.* at 1; Ex. 2003 at 3.

The '261 Patent claims priority to U.S. Patent No. 8,886,753, U.S. Patent No. 8,145,704, and Provisional Application No. 60/934,456. The '261 Patent describes ways to tailor media content to specific users. *See, e.g.*, '261 Patent at 2:61-65, Abstract; *see also id.* at 2:50-3-11, 5:26-53. This results in a more unique and tailored experience for the user.

III. LEVEL OF ORDINARY SKILL IN THE ART

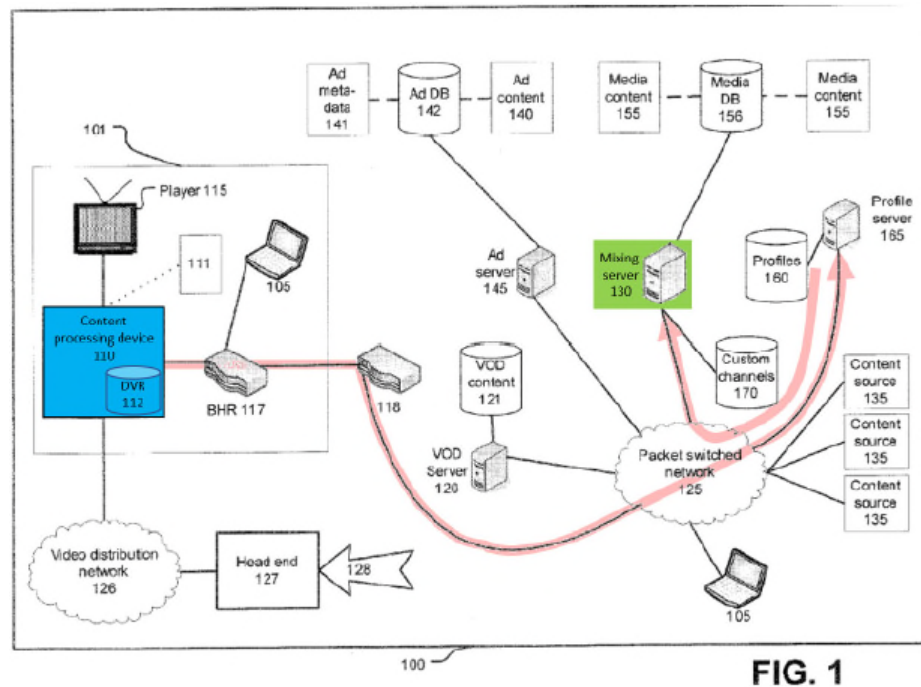
A person of ordinary skill in the art (“POSITA”) at the relevant time period between 2006 and 2007 would be one having a bachelor’s degree in computer science, computer engineering, or an equivalent, or two years of professional experience in the field of distributed computing. More education can supplement for less professional experience, and vice versa. Ex. 2001 (Goodrich Decl.) at ¶ 17.

IV. THE RELEVANT ASSERTED REFERENCES

A. Whitehead (Grounds 1 and 2)

Whitehead discloses a system delivering customized media to a customer premise 101 from various backend servers, such as mixing server 130. Whitehead

at Fig. 1, 2:1-30. Whitehead is different from the claimed invention for numerous reasons. However, of particular relevance here, is what Petitioner identifies as the publisher (mixing server 130), the aggregator (content processing device 110), and user-information (profile 160 stored in profile server 165). As Petitioner's annotation of figure 1 of Whitehead (reproduced below) shows, Whitehead's mixing server 130 receives profiles 160 (the alleged "user-information") from profile server 165 via a communication (pink arrow).



Pet. at 26, 25 ("Whitehead's profile server 165 then transmits that profile ('*client information*') to mixing server 130.") (emphasis in original) (citing to Whitehead at 11:40-12:17). This is unlike the Challenged Claims that require that the publisher

collect client information via a communication from the aggregator. '261 Patent, Claim 1.

Whitehead confirms that profiles 160 are only stored in in profile server 165, from which the profiles can be accessed, thus are never on the content processing device. Whitehead at 5:56-57. Profiles 160 can be accessed by a computer 105, content processing device 110, or the owner of the profile server 165 in order to create, modify, and/or delete profiles on profile server 165. *Id.* at 6:35-46. Whitehead describes this process of accessing profiles as a GUI interface on profile server 165. *Id.* at 7:3-5, 10:6-14. Because the profiles 160 only exist on the profile server 165, the profiles 160 are only collected from profile server 165.

Petitioner confirms the understanding that the mixing server 130 does not collect profile 160 from content processing device 110 in its Petition in this matter and another matter (IPR2024-01340). Pet. at 25 (“Whitehead’s profile server 165 then transmits that profile (*‘client information’*) to mixing server 130.”) (emphasis in original); Ex. 2013 at 19 (arguing to combine profile server 165 to content processing device 110 so that content processing device 110 would contain profiles), 37 (“Whitehead’s mixing server 130 accesses information from profile 160 for a particular custom media channel (*‘user information’*).”) (emphasis in original).

B. Cristofalo (Ground 3)

Cristofalo discloses a system with a transmitting system 102 that selects media objects (ads) based on a user profile and sends them to a receiving system 104. Cristofalo at [0049-50], Fig. 4 (at block 408). Receiving system 104 combines the media objects (ads) for a final presentation to the user. *Id.* at Fig. 2, Cristofalo at [0049-50, 54-55], Figs. 4 (at block 408 and 410), 5 (at block 508 and 510). Cristofalo's presentation system 112 is any system that can present the media object (ad), such as a set top box, tv, or audio system. *Id.* at [0024]. Cristofalo is very different from the claimed invention for many reasons. Of particular relevance here, is what Petitioner identifies as the publisher (transmitting system 102) and the aggregator (receiving system 104). Cristofalo's transmitting system 102 does not generate a programming feed. Indeed, it is the alleged receiver system 104 that "support the reception, selection, and composition of media object based content into audio, video, and audio-video presentations." *Id.* at [0027]. In addition, the transmitting system 102 is not involved in communicating to the client. As discussed in Cristofalo, it is receiving system 104 receiving system that communicates the final form of the media objects (ads) to the presentation system 112. *Id.* at [0046]. Cristofalo's transmission system 102 selects the media object (ad) based on user profile information. *Id.* at [0046].

V. THE CHALLENGED CLAIMS ARE PATENTABLE

The Petition advances a total of three grounds, each challenging Independent Claim 1. *See* Pet. at 3-4. For at least the reasons discussed as follows, Petitioner fails to show a reasonable likelihood that any ground would prevail with respect to any claim.

A. Ground 1: The Challenged Claims are Patentable Over Whitehead

1. Whitehead Does Not Disclose Presenting a Plurality of Media Feeds by an Aggregator and Initiating Customized Programming Based on the Selection

Whitehead does not disclose receiving, by an aggregator, a user's selection of "media feeds available from at least one publisher, wherein each said media feed comprises a plurality of media elements" and "initiating, individual customized media programming comprising media elements selected from one or more libraries in communication with said publisher." In Whitehead, the user's selection of a "custom media channel" causes the system to either (1) play a predetermined version of the custom media channel or (2) generate the custom media channel in real-time. *See, e.g.*, Whitehead at 16:66-17:17. In the former embodiment, the user's selection of a custom media channel merely causes the system to play the predetermined channel without "initiating" any further "customized media programming." In the latter embodiment, the user is not presented with a menu of media feeds, each including "a plurality of media elements," because those feeds are not yet generated and do not contain any "media elements."

a) Mapping 1: Custom Media Channels are not Selected and Incorporated into Media Programming

In “Mapping 1” Petitioner alleges that “custom media channels 170 are themselves the claimed ‘media feeds.’” Pet. at 18. In this mapping, Claim 1 is patentable because the user’s selection of a custom media channel does not cause the “initiating... individual customized media programming comprising media elements selected from one or more libraries in communication with said publisher,” as claimed.

In one of Whitehead’s embodiments, the user’s selection of a custom media channel causes the mixing server to generate the custom media channel in real-time. Whitehead at 11:43-49 (“That is, a playlist 205 may be generated and a custom media channel 170 may be created in real-time or near real-time when a user ‘tunes’ to the channel 170 or otherwise selects the channel 170 for viewing through playback device 115.”). However, if a custom media channel does not exist at the time the user selects its corresponding menu item, the menu item does not represent a media feed that “comprises a plurality of media elements,” as claimed.

This is why, when a custom media channel is generated in real-time, the channels are presented according to “names or identifier selected by a user when creating channel profiles 160,” or “according to attributes” like “baseball” or “weather,” or organized into other groups or structures. *Id.* at 16:5-14. On the other hand, where the custom media channel is pre-generated, and therefore “comprises a

plurality of media elements,” the user is presented with the option to select the channel itself or the individual media elements that make up the channel. *Id.* at 16:14-21.

In this other embodiment, where a custom media channel is pre-generated, the user's selection of the channel does not cause the system to “initiat[e]... individual customized media programming comprising media elements selected from one or more libraries in communication with said publisher” because the pre-generated channel **is** the “customized media programming.” Whitehead at 11:58-7 (“Embodiments are also possible in which a custom media channel 170 is created and stored prior to a user's request to access the channel 170.”). Rather than the user's selection initiating the generation of custom programming, therefore, the user's the selection merely **plays** the already-generated channel. *See id.* at 16:66-17:17 (disclosing either playing stored files according to a playlist or determining in real-time which media content is necessary and retrieving that content from a library).

For at least the foregoing reasons, Mapping 1 does not reach the Challenged Claims.

**b) Mapping 2: The User Does Not Select Media Feeds
from Content Sources**

In “Mapping 2” Petitioner alleges that “each custom media channel 170 generated by mixing server 10 corresponds to a “media stream”¹ [sic] from a different content source.” Pet. at 18-19.

Petitioner's Mapping 2 ultimately shares the same deficiency as Mapping 1 because it still relies on the user's “selection” of a custom media channel from a menu of available media channels. Pet. at 18-19. As discussed above, the user's selection of a custom media channel does not “initiat[e]... individual customized media programming comprising media elements.” See § V.A.1.a, *supra*. Thus, even if Content Sources 135 provide “media feeds” to the mixing server, there is no sense in which the user's selection of a custom media channel selects a Content Source's “media feed.” Rather, the user still selects the custom media channel, which causes the system to either generate the channel in real-time (in which case, the user's selection does not correspond to a “media feed [that] comprises a plurality of media elements”) or play the pre-generated channel (in which case, the system does not initiate “individual customized media programming” based on the user's selection). *Id.*

¹ Presumably, Petitioner means “media feeds.”

Mapping 2 also fails because the content chosen for any custom media channel is unrelated to the user's **selection** of a custom media channel. *Cf.* Pet at 30. That is, the user's selection of a custom media channel is not a selection of any particular "content source 135" (the alleged "media feed") that may later become associated with the channel. Rather, as Petitioner acknowledges, "each custom media channel 170 is created based on a different profile 160." *Id.* at 19; *see also id.* at 30; Whitehead at 12:22-55 (querying metadata associated with content and advertisements based on information stored in profile 160). Petitioner then argues that content is "selected based on profile 160," not the user's selection of a particular media feed or feed(s). Pet. at 30.

Claim 1 expressly differentiates the user's "selection" of one or more media feeds presented by an aggregator from "user data," and data stored in profile 160 is (at best) user data. *See* Pet. at 30 (equating data stored in profile 160 with the claimed "user information"). "Where a claim lists elements separately, 'the clear implication of the claim language' is that those elements are 'distinct component[s]' of the patented invention." *Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) (alteration in original) (quoting *Gaus v. Conair Corp.*, 363 F.3d 1284, 1288 (Fed. Cir. 2004)). The '261 Patent plainly distinguishes between a user's **selection** of a media feed from a plurality of existing media feeds and "user data," so Petitioner's argument that a user "selects" a media feed based on

information stored in the user's profile does not facially satisfy the requirements of Claim 1.

* * * * *

For at least the foregoing reasons, Whitehead does not disclose an aggregator receiving a selection of a media feed. Nor does Whitehead disclose assembling that media feed into media programming.

2. Whitehead Does Not Disclose “Providing By the Aggregator, To Said Publisher, Client Information ...” Element 1[e]

Independent Claim 1 is also patentable because Whitehead does not disclose an aggregator providing “client information comprising information about the user and information about the associated client device” to the publisher. In view of Whitehead's deficiencies, Petitioner presents two different arguments about this limitation, but neither has merit.

Petitioner's first argument rewrites the claims to remove the requirement that the aggregator provide the user and client device information to a publisher. *See* Pet. at 24-25. Petitioner's second argument acknowledges that this limitation requires the aggregator to provide this information to the publisher. *See id.* at 26, 28. Because Whitehead does not disclose this approach, Petitioner argues that it would have been obvious to implement Whitehead's profile server at its mixing server. This proposed modification, however, is based entirely on impermissible hindsight gleaned from the inventor's disclosure, not record evidence. The Challenged Claims

are also patentable under Petitioner's overbroad interpretation of the claims because Whitehead's content processing engine 110 does not send the alleged client information (profiles 160) to profile server 165.

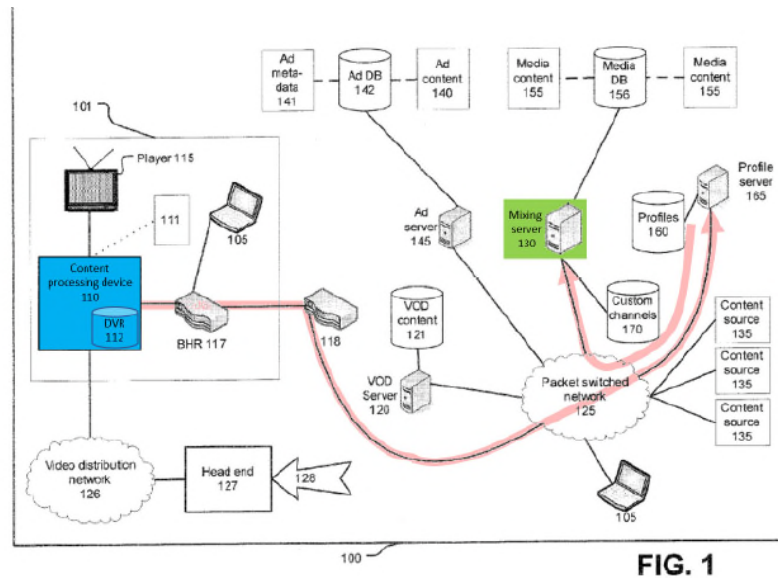
**a) Whitehead Does Not Disclose an Aggregator
Providing Client Information to a Publisher**

Whitehead does not disclose "providing by the aggregator, to said publisher, client information comprising information about the user and information about the associated client device."

Petitioner's primary argument regarding this limitation depends on an interpretation of the claim that gives no patentable weight to the requirement that the aggregator provide this information to the publisher. Pet. at 24-25. The Board should reject Petitioner's attempt to read limitations out of the claims. *Wasica Finance GmbH v. Cont'l Auto. Sys., Inc.*, 853 F.3d 1272, 1288 n.10 (Fed. Cir. 2017) ("It is highly disfavored to construe terms in a way that renders them void, meaningless, or superfluous.") (citation omitted).

Whitehead does not teach or disclose this limitation as properly construed. As Petitioner admits, the alleged aggregator in Whitehead's system (content processing

engine 110) (at best)² provides the alleged client information to profile server 165, not the alleged publisher (mixing server 130):



Pet. at 26 (depicting sending profiles 160 from profile server 165 to mixing server 130 via a communication message).

Accordingly, the Board should determine that Whitehead does not disclose this limitation at least because Whitehead's content processing device does not send the alleged "client information" to the alleged publisher.

² Whitehead does not disclose sending profiles 160 from content processing engine 110 to profile server 165, as Petitioner claims. See § V.A.2.c, *infra*.

b) A POSITA Would Not Have Modified Whitehead to Transmit Client Information from the Content Processor to the Mixing Server

Petitioner's alternative argument that it would have been obvious to "implement profile server 165 as part of mixing server 130" fares no better because it misuses common sense and relies on impermissible hindsight instead of record evidence. Pet. at 26-28; *see also* Ex. 2001 (Goodrich Decl.) at ¶¶ 33-37.

First, Petitioner's proposed modifications misuse common sense to supply a missing limitation without meeting the relatively strict standard for single-reference obviousness grounds. In *Arendi S.A.R.L. v. Apple Inc.*, 832 F.3d 1355 (Fed. Cir. 2016), the Federal Circuit considered whether and under what circumstances common sense (as opposed to record evidence and motivation to combine) could be used to supply a missing claim limitation. *Id.* at 1361-62. The court explained that invoking common sense to supply a missing limitation may be proper when "the limitation in question [is] unusually simple and the technology particularly straightforward." *Id.* at 1362. Petitioner has not attempted to make that showing.

Instead, Petitioner presents a *post-hoc* rationalization for its proposed modification, arguing that Whitehead, as modified, would "simplify processing and communications." Pet. at 26, 28; *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007) (stating that a "factfinder . . . must be cautious of arguments reliant upon ex post reasoning"). However, after-the-fact identification of the benefits flowing from

a particular invention does not prove that it would have been obvious to make the modification at the time of the invention. *Otsuka Pharm. Co. v. Sandoz, Inc.*, 678 F.3d 1280, 1296 (Fed. Cir. 2012) (“The inventor’s own path itself never leads to a conclusion of obviousness; that is hindsight. What matters is the path that the person of ordinary skill in the art would have followed, as evidenced by the pertinent prior art.”) (citations omitted).

Instead, when using common sense arguments like these to fill in gaps of a single reference obviousness argument, it is incumbent on the petitioner to “explain the ‘common knowledge and common sense’ on which it relied,” and Petitioner’s arguments—addressed in detail directly below—do not (and are not alleged) to meet this standard. *Arendi*, 832 F.3d at 1362 (citations omitted). Indeed, Petitioner’s argument assumes the conclusion because it has not established that maintaining user profiles at mixing server 130 **would** improve processing efficiency in Whitehead’s system, let alone demonstrate that such a benefit was “common knowledge.” *Id.* at 1362.

Second, Petitioner argues that Whitehead “recognizes that various functionalities in Figure 1 can be combined or shifted between system components. Pet. at 19. However, Whitehead does not disclose that the **profile server** can be shifted to the **mixing server**. Whitehead at 2:52-59 (disclosing that the “media player” may be a TV or software), 4:10-26 (disclosing that mixing server and VOD

server could be integrated into a single server), 6:35-46 (custom channel profiles may be created by a user of computer 105 or at content processing device 110), 15:16-22 (a playback application may be located at client 105, content processing device 110, or mixing server 130), 19:44-63 (same). Moreover, even if Whitehead included a “generic” statement about the moving functionality from one location to another—it does not—such statements would not suffice to demonstrate that a POSITA would “‘envisage’ the specific combination [Petitioner] urges.” *BlephEx, LLC v. Myco Indus., Inc.*, 24 F.4th 1391, 1401 (Fed. Cir. 2022).

Petitioner further argues that “[m]aintaining profiles 160 on content processing device 110 would simplify processing and communications,” but it only the conclusory testimony of its expert in support of its conclusion. Pet. at 19 (citing Ex. 1002 at ¶ 90). A declaration that “merely repeats, *verbatim*, the conclusory assertion for which it is offered to support” is “entitled to little or no weight.” *Xerox Corp. v. Bytemark, Inc.*, No. IPR2022-00624, Paper 9 at 15 (P.T.A.B. Aug. 24, 2022) (precedential).

In fact, Dr. Almeroth’s conclusory testimony is contradicted by the record evidence. See Pet. at 26-28 (wrongly contending that Whitehead’ discloses that any functionality can be combined or shifted between components). Relocating functionality from one server to another would adversely affect load balancing, reliability, and latency. See Goodrich Decl. at ¶ 37. Further, multi-server systems

are known to minimize latency as demand is evenly distributed across multiple servers, which, is the case here. *See* Ex. 2010 at 2 (explaining that the use of multiple servers “enhance[s] network performance, reliability, and capacity while minimizing latency.”).

In accordance with these principles, Whitehead discloses segregating profile functionalities at profile server 165 and custom media channel functionalities at mixing server 130. Goodrich Decl. at ¶¶ 36-37 (providing context on the workload required for streaming servers and why a POSITA would not have been motivated to add profile functionality on the server) (citing Exs. 2011-2012). Petitioner's argument does not acknowledge these general principles or offer any particular reason for modifying Whitehead in spite of them.

In view of the above, Petitioner has not established, absent hindsight reasoning, that a POSITA would have been motivated to implement profile server 165 as part of mixing context server 130. Thus, Whitehead also does not render obvious this limitation.

**c) Whitehead Does Not Disclose an Aggregator
“providing client information” Under Petitioner's
Overbroad Interpretation**

The Board should also determine that Whitehead does not disclose this limitation under Petitioner's overbroad interpretation because Whitehead's content

processing engine 110 does not “provide” client information to any other device, including profile server 160. *See* Pet. at 24-25; Goodrich Decl. at ¶¶ 28-32.

In Whitehead's system, a user defines custom media channel profiles 160 by logging into profile server 165. Whitehead at 10:6-45. Once logged in, profile server 165 presents the user with a graphical user interface (“GUI”) that includes “fields that may be included in a custom channel profile 160.” *Id.* at 10:40-45, 7:3-18. The user then fills in one or more fields in order to define the profile. *Id.* at 10:46-67, 7:3-5. When finished defining the profile, “the user clicks a button or the like to indicate submission of the information for profile 160 . . . whereupon profile server 165 stores the newly created or updated profile 160.” *Id.* at 11:17-23; *see also id.* at 6:35-37, 7:3-5, 10:4-67, 19:16-17, Fig. 3.

Accordingly, profiles 160 are not sent from content processing device 110 to profile server 160 when carrying out these steps. *Cf.* Pet. at 24 (“Whitehead discloses that mixing server 130 receives a profile 160... from content processing device.”). Rather, content processing device 110 presents an alternative method for the user to login to profile server 165 (the user may also login to profile server 165 from the client device). Whitehead at 10:9-11 (“Generally the user, via computer 105, accesses profile server 165 through packet switched network 125.”); *id.* at 10:29-32 (“Further, a user accessing profile server via content processing device 110

could be automatically logged in to profile server 165 according to a unique or substantially unique identifier stored in content processing device 110.”).

Thus, while Whitehead discloses that content processing device 110 can “create, modify, or update” profiles, that disclosure refers to its ability to enable the user to login to profile server 165 from content processing device 110 rather than the client device. Goodrich Decl. at ¶ 31 (citing Whitehead at 6:35-46). This disclosure does not meet the claim language because Whitehead’s profile server 165 is where the user information is being manipulated and stored. Content processing device 110 merely provides the user with a conduit to login to profile server 165. Whitehead does not disclose that the user information is created at the content processing device 110 or sent to the profile server 165.

Notably, in a Petition challenging a related Patent, Petitioner argues that it would have been obvious to modify Whitehead such that profiles 160 are stored at content processing device 110 rather than profile server 160, thereby acknowledging that profiles 160 are not stored on content processing device 110 to begin with. Ex. 2013 at 19 (arguing to combine profile server 165 to content processing device 110 so that content processing device 110 would contain profiles).

Accordingly, even under Petitioner’s overbroad interpretation of this limitation, the alleged aggregator (content processing device 110) does not provide client information to the alleged publisher (mixing server 130).

B. Ground 2: Petitioner Fails to Demonstrate that Whitehead in View of Marcus '904 Renders Obvious the Challenged Claims

For this Ground, Petitioner relies on Marcus '904 only for its alleged algorithm of “receiving, selecting, ordering, and assembling of different media streams [sic],” and relies on Whitehead for all other limitations. Pet. at 41 n.7; *see also id.* at 36 (alleging that “[f]or limitation 1[f] and claims 2 and 4 . . . Marcus '904 discloses all aspects of the challenged claim pertaining to an algorithm for selecting, ordering, and assembling media programming”). Marcus '904's algorithm does not cure any of the deficiencies noted above, therefore, for the same reasons Ground 1 fails, Ground 2 also fails.

C. Ground 3: Petitioner Fails to Demonstrate That Cristofalo in View of Marcus '904 Renders Obvious the Challenged Claims

1. Petitioner Has Not Established that Cristofalo in View of Marcus '904 Discloses Disclose Limitation 1[f]

Petitioner argues that Cristofalo discloses the subject matter of Claim 1[f], allegedly because Cristofalo's “transmitting system 102 generates media programming (“individual customized media programming comprising media elements”) based on the desired program selected by the user (“correspond to at least one selected media feed”) and user profile information (“responsive to said user information”).” Pet. at 58.

However, as Petitioner admitted in IPR2024-01343, Cristofalo's *receiving system 104* “receive[s] multiple, multiplexed media objects and select[s] the

appropriate media object for inclusion in the programming,” not its transmitting system. Ex. 2008 at 9 (emphasis added). By Petitioner’s own admission, Cristofalo’s transmitting system (the alleged “publisher”) does not “generate[] media programming,” as Petitioner contends. Pet. at 58.

Petitioner’s admission in IPR2024-01343 is consistent with Cristofalo’s disclosure, which discloses that the receiving system generates final media programming. See Cristofalo at ¶ [0049] (“Upon receiving the multi-object programming [advertisements] signal, the receiving system 104 then selects specific media objects for decompensation, composition, and presented based upon the user’s profile (Block 408)”); see also *id.* ¶¶ [0045]-[0048]; § IV.B, *supra*. Accordingly, Cristofalo’s final programming is compiled at the receiving end, where advertisements are assembled with the selected programming based on the user profile, not at the transmitting end, as alleged in the Petition. See § IV.B, *supra* (depicting this compilation in the process of figure 4 and the system embodiments of figures 2 and 3); Cristofalo at ¶¶ [0045]-[0050] ¶¶ [0035, 38, 44, 47].

Petitioner also argues that it would have been obvious to implement Marcus ’904’s algorithm at transmitting system 102, but Petitioner’s argument is entirely conclusory and contradicts the record evidence. See Pet. at 58-59 (admitting that Cristofalo lacks any detail regarding targeting at the transmitting system), 46 (“A POSITA would have modified Cristofalo’s transmitting system 102 to incorporate

Marcus '904's algorithm (running on Marcus '904's receiver) for receiving, selecting, ordering, and assembling different media streams [sic]....").

While Petitioner argues (*see* Pet. at 56) that a POSITA would have implemented Marcus '904's algorithm at Cristofalo's transmitting system, such an implementation would have been "unnecessary" given that Cristofalo's receiving system "already" assembles the programming with advertisements. *See In re Schweickert*, 676 F. App'x 988, 995 (Fed. Cir. 2017) (determining that the proposed modification is "unnecessary" because the reference "already" performs the function).

Moreover, as Petitioner repeatedly acknowledges, Marcus' algorithm is executed on a "receiver," not a transmitter:

Marcus '904's algorithm (running on Marcus '904's receiver) for receiving, selecting, ordering, and assembling different media streams [sic] (both for content and advertising).

Pet. at 41.

[Marcus '904] describe[s] a receiver 100 that "collects media" from different "media source[s]" and "assembles a program from the collected media."

Id. at 50 (citing Marcus '904 at ¶ [0030]). Marcus '904's receiver "selects media elements from the media streams for inclusion in the programming based upon the user data," "arranges the selected data elements into an order based upon the user

data,” and concatenates the result, all based on user data. Pet. at 58-59 (citing Marcus '904 at ¶¶ [0040]). Thus, Petitioner's evidence does not support its argument that a POSITA would have found it obvious to implement Marcus '904's algorithm at Cristofalo's “transmitting system.” Cf. Pet. at 58.

Petitioner does not, therefore, present sufficient reasoning with evidentiary support for implementing Marcus '904's algorithm at Cristofalo's transmitter. *Plantronics, Inc. v. Aliph, Inc.*, 724 F.3d 1343, 1354 (Fed. Cir. 2013) (“Where, as here, the necessary reasoning is absent, we cannot simply assume that ‘an ordinary artisan would be awakened to modify prior art in such a way as to lead to an obviousness rejection,’ and in such circumstances “it is especially important to guard against the dangers of hindsight bias.”) (citation omitted).

Thus, Petitioner fails to demonstrate that Cristofalo in view of Marcus '904 renders obvious Independent Claim 1.

2. Petitioner Fails to Demonstrate That Cristofalo in View of Marcus '904 Renders Obvious Element 1[e]

As detailed below, Petitioner does not show that Cristofalo taken alone or in view of Marcus '904 teaches or suggests the “providing by the aggregator . . . client information” limitation.

Petitioner argues that the user's selection of a feed represents “user information” is meritless. Pet. at 53-54 (“receiving system 104 provides information on programs selected by the user and content to receive”); Cristofalo, ¶¶ [0037],

[0039]. Under the doctrine of claim differentiation, a user's current media feed selection cannot be the user information because "selected media feed" and "client information" are distinct claim elements. Goodrich Decl. at ¶¶ 38-39; *LG Elecs., Inc. v. Polaris PowerLED Techs., LLC*, No. IPR2020-01337, Paper 11 at 18 (P.T.A.B. Mar. 9, 2021) (denying institution because the petition relied on the same prior art element for "separate claim limitations that are distinct and cannot be the same structure"); *Lego Sys., Inc. v. MQ Gaming LLC*, No. IPR2020-01446, Paper 14 at 11-14 (P.T.A.B. Feb. 16, 2021) (same); *Cisco Sys., Inc. v. Egenera, Inc.*, No. IPR2017-01341, Paper 10 at 14-15 (P.T.A.B. Nov. 13, 2017) (same). Petitioner does not identify any other information as the claimed user information.

Furthermore, Petitioner's argument—that Cristofalo teaches this limitation because "user profile information... is received and analyzed by the transmitting system"—fails because receiving system 104 does not send any user profile information to transmitting system 102. Cristofalo at [0039] (disclosing that **user profiling system 106** "generat[es] user profiles based on user viewing habits" based on the user's current selection of feed, not **receiving system 104**). Nor does the fact that the profiling system might be "co-located" with transmitting system 112 mean that sending profile information from **receiving system 104** to **user profiling system 106** is tantamount to sending profile information from a **receiving server 104** to

transmitting system 102. Id. at ¶ [0037]. Two separate servers remain separate servers even when they are on the same network and/or in physical proximity.

Thus, Cristofalo taken alone or in view of Marcus '904 does not render obvious this limitation.

VI. CONCLUSION

For at least the foregoing reasons, the Board should deny institution.

Respectfully submitted,

Dated: December 13, 2024

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CERTIFICATE OF COMPLIANCE

The undersigned hereby certifies that the portions of the foregoing PATENT OWNER'S PRELIMINARY RESPONSE specified in 37 C.F.R. § 42.24 has 5,282 words in compliance with the 14,000 word limit set forth in 37 C.F.R. § 42.24(b)(1). This word count was prepared using the Microsoft Word word-processing system used to prepare this paper.

Dated: December 13, 2024

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CERTIFICATE OF SERVICE

The undersigned certifies, in accordance with 37 C.F.R. § 42.6(e), and pursuant to agreement by the parties that filing with the Board through the Patent Trial and Appeal Case Tracking System (P-TACTS) and e-mailing an electronic copy to counsel of record for Petitioner constitutes electronic service, service was made on Petitioner as detailed below.

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