

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TIKTOK INC.,
Petitioner,

v.

NTECH PROPERTIES, INC.,
Patent Owner.

Case No. IPR2024-01343
U.S. Patent No. 9,923,947

PATENT OWNER'S PRELIMINARY RESPONSE

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PATENT OWNER'S EXHIBIT LIST

Exhibit	Description
2001	Declaration of 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	M.J. Freedman, et al., "Geographic Locality of IP Prefixes," Internet Measurement Conference, 153-158 (2005)
2005	I. Poese, et al., "IP Geolocation Databases: Unreliable?" ACM SIGCOMM Computer Communication Review, Vol. 41, No. 2 (April 2011)
2006	Information Security Office Webpage – Separation of System Resources Guideline, available at https://security.berkeley.edu/separation-system-resources-guideline , dated Nov. 18, 2024
2007	J. William, "6 Reasons Why You Should Start Using A Multi Server Environment," available at https://www.temok.com/blog/multi-server-environment/ , dated Nov. 7, 2019
2008	Intentionally Omitted
2009	B. Gleeson, et al., "RFC 2764: A Framework for IP Based Virtual Private Networks," available at https://www.rfc-editor.org/rfc/rfc2764 , dated Feb. 2000

I. INTRODUCTION

The Board should deny the Petition because the prior art of record does not disclose 1) generating customized media programming based on the user's selection of a publisher-initiated feed responsive to a feed selection and including media elements and 2) a publisher collecting client information from an aggregator.

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 feed to assemble that channel with other media elements. In the embodiment where the channel is assembled in real time, there is no existing "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.

II. BACKGROUND AND FACTS

A. NTECH

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 '947 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.* NTECH continued to innovate and developed new ideas, including those in the '947 Patent. 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.

B. The '947 Patent

The '947 Patent describes ways to tailor media content to specific users. Specifically, as depicted in figure 7 below, the aggregator provides a list of feeds to a user (step 705), the aggregator receives a feed selection from a user (step 710), the publisher receives the user feed selection and user information from the aggregator (step 715), and the publisher provides a customized media programming in which the selection and order of the media elements are concatenated with a feed using in part the user information (step 720). '947 Patent at 13:21-30, Claim 1.

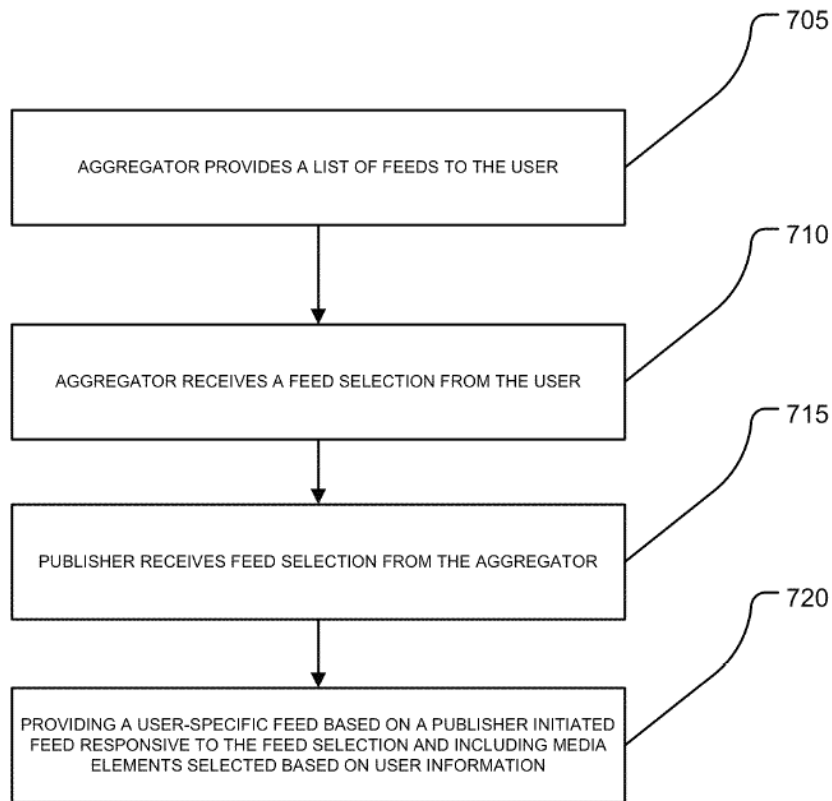


Fig. 7

Id. at Fig. 7.

The provisioning of individualized customized media programming is further exemplified in Figure 1, which depicts the publisher providing customized media programming to different users. *Id.* at 2:60-3:1; Fig. 1 (depicting the aggregator providing a presentation element having a list of feeds to user 1 and user 2, and the publisher providing user-specific media programming to each user upon publisher receiving feed selection and user information from aggregator); *see also id.* at 3:1-15 (disclosing that the publisher selects and concatenates media elements based on

user information), 5:35-61(disclosing that the publisher server's processor executes software to provide media programming). This results in a more unique and tailored experience for the user.

For instance, the publisher generates customized media programming that includes dynamically varying sequence of media elements; with the selection and order specific for each user based on their user information. *Id.* at 12:47-59. Notably, during prosecution, the Applicant stressed that the claimed "publisher" customizes the media programming and provides dynamic updates to "customize additional elements in the media programming" when additional user information is received. Ex. 1019 at 139.

III. LEVEL OF ORDINARY SKILL IN THE ART

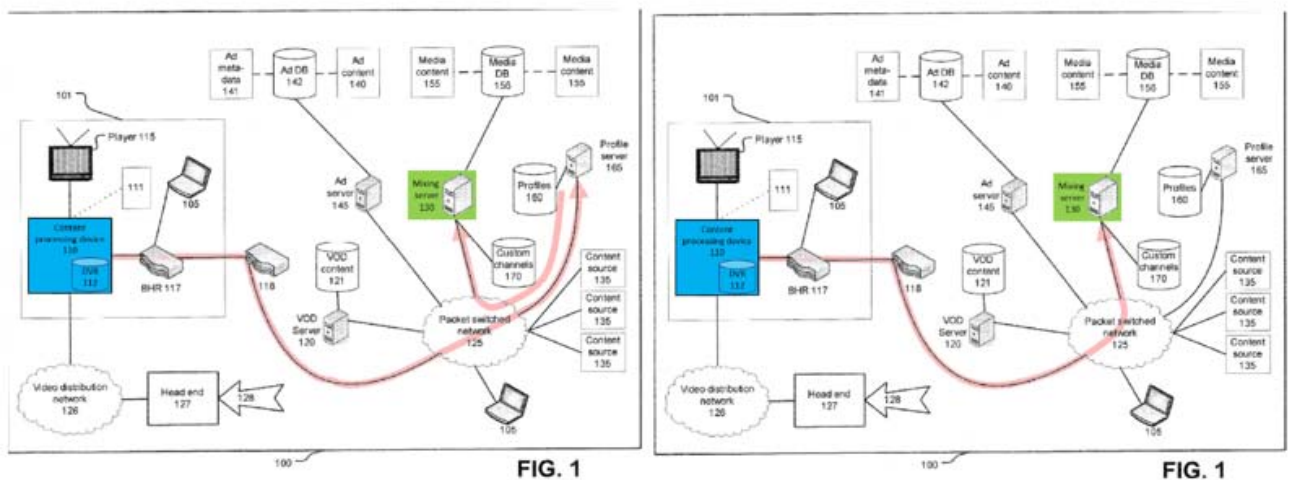
A person of ordinary skill in the art ("POSITA") at the relevant time period between 2006 and 2007 would be one having a bachelor's degree in computer science, computer engineering, or an equivalent, or two years of professional experience in the field of distributed computing. More education can supplement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

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 Whitehead's figure 1 (reproduced below) shows, Whitehead's mixing server 130 receives a custom media channel request from content processing device 110 and separately receives profiles 160 from profile server 165:



Pet. at 24, 29 (Whitehead Fig. 1 (annotated)) (depicting profile server 165 providing profiles to mixing server 130 via a communication (left), separate from content processing device 110 providing a custom media request to mixing server 130 (right))

Whitehead's operation is unlike the Challenged Claims that require the aggregator send to the publisher the media feed selection, including both the selection and user information.

B. Cristofalo (Ground 3)

Cristofalo discloses a system with a transmitting system 102 that transmits media objects (advertisements) and sends them to a receiving system 104. Cristofalo at ¶¶ [0049]-[0050], Fig. 4 (at block 408). Receiving system 104 will then select the media objects (advertisements) based on user profiles for a final presentation by presentation system 112. *See id.* at Fig. 2, ¶¶ [0049]-[0050], [0054]-[0055], 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 (advertisement), 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[s] the reception, selection, and composition of media object based content into audio, video, and audio-video presentations." *Id.* at ¶ [0027]. In addition, 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 (advertisement) to the presentation system 112. *Id.* at ¶ [0046].

**V. PETITIONER FAILS TO ESTABLISH A REASONABLE
LIKELIHOOD ON ANY GROUND**

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. Grounds 1 and 2: The Challenged Claims are Patentable Over
Whitehead and Marcus '904**

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

Whitehead does not disclose generating “customized media programming” by “receiving by the aggregator . . . a selection identifying at least one of the media feeds” and “inserting into media programming . . . responsive to the media selection, based on the user information, an element.” ’947 Patent at Claim 1. 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 “inserting” 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” ('947 Patent at Claim 1), because those feeds are not yet generated and do not contain any “media elements.” *Id.*

(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 19. In this mapping, Claim 1 is patentable because the user’s selection of a custom media channel does not cause the “inserting into media programming . . . responsive to the media selection, based on the user information, an element,” as claimed.

Claim 1 requires that the claimed “element” be inserted into media programming based on the user’s selection of an existing feed. As explained during prosecution of the '947 Patent, this aspect of the invention “allows the publisher to customize **additional** media elements in the media programming on a user by user basis.” Ex. 1019 at 139. For example, “a sidebar” may be added to the media programming created in response to the user’s selection of an existing feed, and the content of that sidebar can be updated continuously based on new user information. Whitehead does not disclose adding any elements to an existing custom media channel in response to a user’s selection of the channel.

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 fact, Petitioner relies on Whitehead’s pre-generated embodiment in arguing that the custom media channels are “*create[d]*” with media elements and then provided as a list to the user to select from. *See* Pet. at 22; *see also id.* at 15-16.

In this pre-generated embodiment, the user’s selection of the channel does not cause the system to “insert[] into media programming . . . an element” 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 130 corresponds to a "media stream"¹ [sic] from a different content source." Pet. at 20.

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 20. As discussed above, the user's selection of a custom media channel does not "insert[]" elements responsive to the selection. *See* § V.A.1.a, *supra*. Thus, even if content sources 135 provide "media

¹ Presumably, Petitioner means "media feeds."

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 “insert[] into media programming . . . an element” responsive to the selection). *Id.*

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 31. 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 20; *see also id.* at 31; 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 31.

Independent Claim 1 expressly differentiates the user’s “selection” of one or more media feeds presented by an aggregator from “user information,” and data stored in profile 160 is (at best) user information. *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 Nor Render Obvious the Aggregator Providing to the Publisher “Media Feed Selection” with “User Information Included in the Media Feed Selection” (All Challenged Claims)

The Challenged Claims are also patentable because Whitehead does not disclose an aggregator providing a “media feed selection” including “user information . . . in [that] media feed selection” to an aggregator. Instead, Whitehead discloses a mixing server that receives user selections for content from one device (content processing device 110) and user data from another (profile server 165). In

view of Whitehead's deficiencies, Petitioner again presents two different "mappings" of Whitehead's disclosure onto this limitation, but neither has merit.

Mapping 1 acknowledges that this limitation requires user information. *See* Pet. at 23, 26; '947 Patent at Claim 1. However, as Petitioner appreciates, Whitehead does not disclose such an approach. *Id.* at 26. Accordingly, Petitioner makes a number of arguments attempting to explain why a POSITA would have modified Whitehead in one way or another. Each proposed modification, however, is based entirely on impermissible hindsight gleaned from the inventor's disclosure, not record evidence. Ex. 2001 ("Goodrich Decl.") at ¶¶ 25-35. In Mapping 2, Petitioner rewrites the claims to remove the requirements that (1) the request include both types of data *and* (2) the publisher must receive the request from the aggregator. *See* Pet. at 23-24, 29-30.

(a) Feed Selection Mapping 1: Petitioner's Proposed Modifications of Whitehead are Based on Improper Hindsight

Although Petitioner's "Feed Selection Mapping 1" is based on a correct interpretation of the claim, Whitehead neither discloses nor renders obvious a custom channel request including "data indicative of the selected custom media channel 170" and "user information." *Id.* at 25-26.

Petitioner concedes that Whitehead does not disclose including user information in a user selection request for a custom channel. *Id.* at 30 ("Whitehead's

profile server 165 [] transmits a message to mixing server 130 containing that profile 160.” (citing Whitehead at 11:40-12:17)), *id.* (alleging that profiles 160 are “user information”). Indeed, Petitioner’s annotations of Fig. 1 illustrate profiles 160 provided from **profile server 165** to mixing server 130. *See* § IV.A, *supra*. But profile server 165 is not (and is not alleged to be) an aggregator.

Given that Whitehead does not disclose this limitation, Petitioner alleges that it would have been **obvious** to include user data in a custom channel request provided from the content processing device 110 to the mixing server. Pet. at 26-28. Petitioner’s arguments are meritless for several independent reasons.

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 provide more efficient

processing or “simplify processing and communications.” Pet. at 27; *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).

Petitioner’s first argument—that it would improve “processing efficiency” to include “at least some ‘*user information*’ . . . in the request . . . because mixing server 130 would be able to start creating custom media channel even before receiving the remainder of profile 160—is flawed for several independent reasons. Pet. at 26.

For one, Petitioner's argument assumes the conclusion because it has not established that including user information in a selection request **would** improve processing efficiency in Whitehead's system, let alone that such a benefit was "common knowledge." *Arendi*, 832 F.3d at 1362. In fact, Petitioner's argument neglects to consider the impact of mixing server 103 receiving user data in dribs and drabs, as this argument contemplates. Pet. at 26 (arguing that it would be beneficial to receive some user information with the request and the rest of the user data later). But the alleged reason for doing so—"because mixing server 130 would be able to start creating custom media channel 170 even before receiving the remainder of profile 160"—could easily backfire (*e.g.*, if data in the "remainder of profile 160" requires mixing server 130 to scrap the in-progress construction of the media channel). *Id.*

Further, Whitehead's design already permits the "real time or near-real time" assembly of a custom media channel goal with its current system architecture, where profile server 165 sends profiles 160 to mixing server 130. Whitehead at 4:40-44, 8:45-51, 11:45-49. Because Whitehead's system already transmits the necessary data via a profile message, it would be superfluous to include the same information again in the custom channel request. *In re Omeprazole Pat. Litig.*, 536 F.3d 1361, 1380 (Fed. Cir. 2008) (affirming nonobviousness holding where the challenger

failed to provide evidence of a need for proposed modification and the district court therefore concluded a POSITA would have no reason to make it).

Petitioner's second argument, that a "user's geographical location (e.g., 'by looking up the geolocation of an IP address')" "could automatically" be included in the custom channel request, is also meritless because it concerns what a POSITA *could have* done, not what it *would have done*. Pet. at 27; Ex. 1002 ¶ 89 (repeating verbatim the petition language); *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015) ("[O]bviousness concerns whether a skilled artisan not only *could have made* but *would have been motivated to make* the combinations or modifications of prior art to arrive at the claimed invention.") (citation omitted). Again, Petitioner does not provide any evidence demonstrating that including the user's geolocation along with a request for a custom media channel was known to have the benefits it claims, let alone that those benefits were "common knowledge." *Arendi*, 832 F.3d at 1362.

Furthermore, Petitioner's argument again assumes the conclusion, *i.e.*, that the "geographic location [sic] of interest to the user" is subject to change depending on where the user travels. Pet. at 26. But there is no support for this conclusion. Whitehead already allows a user to specify "geographic locations of interest to the user." Whitehead at 1:3-18. If the user indicates that she is interested in Washington DC and New York City, one cannot also presume that she is interested in the various

rural and suburban areas of New Jersey, Delaware, and Maryland just because she passes through those locations as she travels between those two cities. If the user travels to a new location **and** is actually interested in generating a custom channel associated with that location, Whitehead provides all of the necessary tools for the user to create a custom profile associated with the new location.

Furthermore, a POSITA would not have had reason to include a user's IP geolocation because (1) Whitehead provides no suggestion to do so and (2) Petitioner has not established that IP geolocation was a reliable tool for improving convenience and accuracy. Goodrich Decl. at ¶¶ 34-35. To the contrary, at the time of the invention, a POSITA would have understood that IP addresses were poor proxies for geographic locations, as the location accuracy was inadequate and the databases were difficult to manage. *Id.* at ¶ 35 (“[A] study from 2005 that has been cited over 150 times found that IP address prefixes had a diversity of approximately 500 miles at the 50% confidence level and over 1,000 miles at the 90% confidence level.”) (citing Ex. 2004 at 5, Fig. 2) (footnote omitted); *see also id.* (“[A] study from 2011 that has been cited approximately 500 times concludes that even in that timeframe existing IP-address-to-geographic-location databases were difficult to manage and that their accuracy was ‘more than questionable.’”) (citing Ex. 2005 at 1) (footnote omitted). In light of these difficulties and inaccuracies, geolocation of

IP addresses would not have been an improvement of “convenience and accuracy,” as Petitioner suggests. Pet. at 27.

Petitioner's third argument—that it would have been obvious to “implement profile server 165 as part of content processing device 110”—is also the product of hindsight. *Id.* at 27. Initially, Petitioner argues that Whitehead “recognizes that various functionalities in Figure 1 can be combined or shifted between system components.” *Id.* However, Whitehead does not disclose that the **profile server** can be shifted to the **content processing device**. 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 27

(citing Ex. 1002 at ¶ 90). However, 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, for security reasons alone, profile server 165 would be maintained separate from content processing device 110. Specifically, to reduce the risk of comprising profiles 160, containing users' personnel information, a POSITA would have kept profile functionality on profile server separate from content processing device 110. *See, e.g.*, Ex. 2006 at 2 (stating that “[c]ritical services storing, processing and transmitting covered data should be hosted on separate physical or logical servers to reduce the risk of a compromised service”); Ex. 2007 at 2; Goodrich Decl. at ¶ 32.

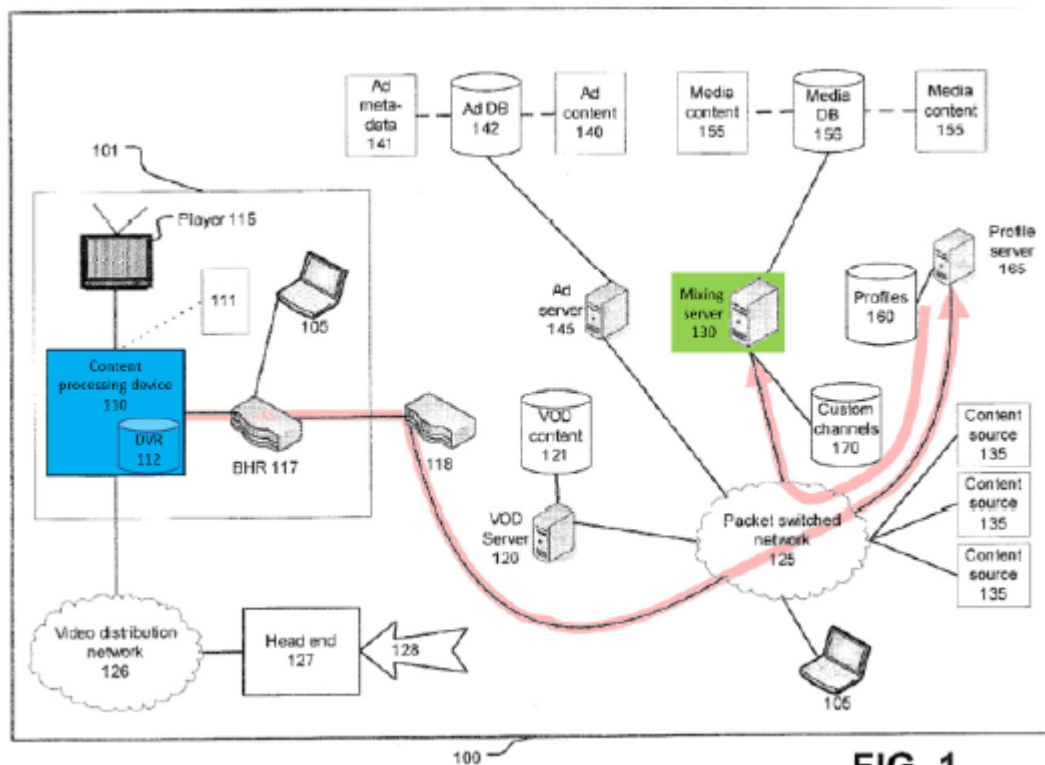
In view of the different functionality and security precautions, a POSITA would not have been motivated to implement profile server 165 as part of mixing context server 130.

(b) Feed Selection Mapping 2 are Inconsistent with the Plain Language of the Claims

Petitioner's “Feed Selection Mapping 2” should be rejected because it relies on rewriting the claim so that it encompasses a device other than the aggregator providing user information to the publisher. *See* Pet. at 23 (sending profile 160

“from profile server 165 to mixing server 130”), 29 (sending is based on “[a] selection of one of those profiles 160”).

Specifically, Petitioner’s argues that Whitehead’s profile server 165 provides profiles 160 to the alleged publisher via a message based on a profile selection. Pet. at 29-30 (alleging that ***profile 160 is selected*** at which point “Whitehead’s ***profile server 165 [] transmits a message*** to mixing server 130 containing that profile 160”) (emphasis added). Petitioner’s annotated Whitehead figure 1 (below), depicts profile server 165 providing profiles 160 to mixing server 130 via a message (pink arrow) in response to a profile selection:



Pet. at 29.

Because Whitehead's alleged aggregator does not provide profiles to the alleged publisher in a channel request responsive to that request, "Feed Selection Mapping 2" does not even meet the plain reading of the aggregator providing to the publisher "the media feed selection" with "user information" included.

* * *

For at least the foregoing reasons, Whitehead does not disclose nor render obvious an aggregator providing to a publisher "media feed selection" with "user information included in [that] media feed selection" under either of Petitioner's mappings.

B. Ground 3: The Challenged Claims are Patentable Over Cristofalo in View of Marcus '904

Petitioner has not raised a reasonable likelihood that any Challenged Claim is unpatentable over Cristofalo in view of Marcus '904 because the combination does not disclose a publisher that compiles and provides the media programming feed. In Cristofalo's system, that task is performed by the aggregator.

1. Cristofalo in View of Marcus '904 Does Not Render Obvious Elements 1[e], 1[f], and 1[g]

Petitioner fails to show that Cristofalo taken alone or in view of Marcus '904 renders obvious Elements 1[e], 1[f], and 1[g] because Cristofalo's alleged aggregator (receiving system 104) generates and provides the final media

programming to the client device as well as provide updates, not its alleged publisher (transmitting system 102) as required by the Challenged Claims.

Claim 1 recites, *inter alia*, “analyzing, by the publisher, user information,” “inserting into media programming . . . based on the user information, an element,” providing, to the client device, the media programming.” ’947 Patent at Claim 1. During prosecution, the Applicant made clear that ***the publisher*** performs these steps, as they allow the publisher to customize the media programming based on the user information and provide the customized programming to the client as well as any dynamic updates in response to additional user information. *See* Ex. 1019 at 139.

Cristofalo’s final media programming provided to the user is generated by the receiving system. *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.* at ¶ [0045]-[0048]. 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's assertion that Cristofalo's transmitting system 102 generates media programming relies entirely on Cristofalo's reference to a "programming signal," but is not the assembled final media programming. See Pet. at 48-49 (highlighting the "programming signal" in Cristofalo's figure 1). Cristofalo explains that the receiving system receives this "programming signal" and, in turn, extracts the media objects (advertisements) and compiles them with the selected programming to generate the final programming provided to the user. Cristofalo at ¶¶ [0045]-[0050] (explaining that media objects are pushed to a user via a programming signal for presentation during the selected programming), Fig. 4 (showing that media objects pushed in a programming signal are extracted and compiled for presentation with the selected programming by receiving system 104).

Accordingly, this is not the final programming compiles at the receiving end, where advertisements are assembled with the selected programming based on the user profile information. *Id.* at ¶¶ [0045]-[0050]. Indeed, Petitioner acknowledges this fact, acknowledging that receiving system 104 "receive[s] multiple, multiplexed media objects and select[s] the ***appropriate media object for inclusion in the programming.***" Pet. at 9 (emphasis added). By Petitioner's own admission, Cristofalo's transmitting system does not "insert[] into the media programming . . . based on the user information, an element."

In view of Cristofalo's deficiencies, Petitioner argues that Marcus '904's algorithm would be implemented in transmitting system 10. See Pet. at 49 (admitting that Cristofalo lacks any detail regarding targeting at the transmitting system), 38 (alleging that "[a] POSITA would have modified Cristofalo's transmitting system 102 to incorporate Marcus '904's algorithm . . . for receiving, selecting, ordering, and assembling different media streams" such that a "final media programming is generated and formatted for display."). While Petitioner attempts to argue that a POSITA would have implemented Marcus '904's algorithm at Cristofalo's transmitting system, such implementation would have been "unnecessary" given that Cristofalo's receiving system "already" assembles the programming with advertisements, as detailed in Section IV.B, *supra*. 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). Accordingly, a POSITA would not have implemented Marcus '904's algorithm into Cristofalo's system, let alone at transmitting side 102 as Petitioner argues. See Pet. at 49.

In fact, as Petitioner repeatedly acknowledges, Marcus '904's 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 (both for content and advertising).

Pet. at 38 (emphasis added).

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

Id. at 49 (emphasis added) (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.

Id. (emphasis added) (citing Marcus '904 at ¶ [0040]). Thus, Petitioner's own evidence shows that a POSITA would have, at most, used Marcus '904's algorithm at Cristofalo's receiving system, as taught in Marcus '904.

Petitioner's theory, therefore, does not present reasoning with evidentiary support for implementing Marcus '904's algorithm at Cristofalo's transmitting side. *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.”).

2. Cristofalo Does Not Disclose an Aggregator Providing “User Information in the Media Feed Selection” to the Publisher Element 1[d] (All Challenged Claims)

Cristofalo's receiving system does not provide a “media feed selection” having both the “feed selection” and “user information” to the transmitting system, as required by the Challenged Claims. *See* '947 Patent at Claim 1.

Petitioner admits that Cristofalo's transmitting system receives user profile information from user profile system 106. *See* Pet. at 46-47 (annotating Cristofalo's figure 1). The fact the user profile system might be “co-located” (*id.* at 46) with transmitting system 112 does not 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**. Cristofalo at ¶ [0037]. Two separate servers remain separate servers even when they are on the same network and/or in physical proximity. Therefore, Cristofalo does not disclose an aggregator providing to the publisher a “media feed selection” having both the feed selection and user information.

Petitioner's alternative obviousness argument does not rectify Cristofalo's deficiency. *See* Pet. at 47 (alleging that “Cristofalo renders obvious that its user profile information (‘user information’) could be included in its “user selection information” (‘media feed selection’).”) (alteration in original). This argument tracks Petitioner's argument for modifying Whitehead to reach this limitation, and it

fails for the same reasons. *See id.* at 47-48; § V.A.2.b, *supra*. In particular, Petitioner (1) impermissibly relies on “common sense” arguments, rather than record device, to modify Cristofalo; (2) its arguments concern with a POSITA *could have* done at the time of the invention, not what a POSITA *would have* done; (3) the proposed combination is the product of hindsight because merely it traces the inventors steps and uses the newly-realized benefits of the invention as a post-hoc rationalization for its arguments. *Id.*

In view of the foregoing, Cristofalo does not disclose nor render obvious the claimed “user information in the media feed selection.”

VI. CONCLUSION

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

Patent Owner's Preliminary Response
IPR2024-01343 (U.S. Patent No. 9,923,947)

Respectfully submitted,

Dated: December 16, 2024

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CERTIFICATE OF COMPLIANCE WITH 37 C.F.R. § 42.24

The undersigned hereby certifies that the portions of the foregoing PATENT OWNER'S PRELIMINARY RESPONSE specified in 37 C.F.R. § 42.24 has 5,981 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.

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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.

<i>Date of service</i>	December 16, 2024
<i>Manner of service</i>	Electronic Filing and Electronic Mail (jimglass@quinnemanuel.com; ogizivojnovic@quinnemanuel.com; qe-bytedance-ntech-iprs@quinnemanuel.com)
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