

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

ZIKLAG IP LLC,
Patent Owner.

IPR2025-00700
U.S. Patent No. 6,182,128 B1

**PETITIONER'S REPLY
TO PATENT OWNER'S RESPONSE**

TABLE OF CONTENTS

PETITIONER’S EXHIBIT LIST	3
I. INTRODUCTION	5
II. LEVEL OF ORDINARY SKILL	5
A. Patent Owner’s declarations should be given little to no weight.....	6
III. CLAIM CONSTRUCTION.....	8
A. “ <i>distributing/transmitting...in substantially real time</i> ”	9
B. “ <i>central controller</i> ”	11
IV. YURT RENDERS OBVIOUS “ <i>SUBSTANTIALLY REAL TIME</i> ” AND “ <i>CENTRAL CONTROLLER</i> ” UNDER ANY CONSTRUCTION.....	14
A. Yurt teaches transmitting digital files in “ <i>substantially real time</i> ” to a user.	15
1. Yurt describes “real time” transmission in similar language to the ’128 patent.....	15
2. Yurt teaches “ <i>substantially real time</i> ” consistent with PO’s understanding.	17
B. Yurt teaches a “ <i>central controller.</i> ”	19
1. Yurt teaches all elements of the claimed “ <i>central controller.</i> ”	19
2. Yurt teaches a “ <i>central controller</i> ” consistent with PO’s understanding.	23
V. PATENT OWNER FAILS TO REBUT PETITIONER’S MOTIVATION TO COMBINE YURT AND LOGAN.....	28
VI. CONCLUSION	31
CERTIFICATE OF WORD COUNT	32
CERTIFICATE OF SERVICE	33

PETITIONER'S EXHIBIT LIST

Ex.1001	U.S. Patent No. 6,182,128
Ex.1002	Prosecution History of U.S. Patent No. 6,182,128
Ex.1003	Declaration of Dr. Andrew Lippman under 37 C.F.R. § 1.68
Ex.1004	<i>Curriculum Vitae</i> of Dr. Andrew Lippman
Ex.1005	U.S. Patent No. 5,132,992 (Yurt)
Ex.1006	U.S. Patent No. 5,732,216 (Logan)
Ex.1007	U.S. Patent No. 5,790,935 (Payton)
Ex.1008	U.S. Patent No. 5,999,970 (Krisbergh)
Ex.1009	WO96/41285 (Kenner)
Ex.1010	U.S. District Courts Statistics (Updated December 2024)
Ex.1011	Complaint; Dkt. 20, <i>Ziklag IP LLC v. Apple Inc.</i> , Case No. 1:24-cv-1787 (NDIL)
Ex.1012	Copy of Full Docket of related District Court Case as of March 5, 2025 (Case No. 1:24-cv-1787 (NDIL))
Ex.1013	Karker et al., "Consistent Hashing and Random Trees: Distributed Caching Protocols for Relieving Hot Spots on the World Wide Web," Proc. Of the 29 th Annual ACM Symposium on Theory of Computing, 1997, 654-663 (Karger)
Ex.1014	"Radio Frequency Interface Specification," Data Over Cable Interface Specifications, SP-RFI01-970326, March 26, 1997 (DOCSIS)
Ex.1015	Sager, G., "Time Warner Cable Full Service Network – Silicon Graphics Technology and Architecture Overview, In: Brenner, W., Kolbe, L. (eds) The Information Superhighway and Private Households. Physica-Verlag HD (1996) (Sager)

Ex.1016	Joint Motion to Stay Discovery Deadlines; Dkt. 22, <i>Ziklag IP LLC v. Apple Inc.</i> , Case No. 1:24-cv-1787 (NDIL)
Ex.1017 (NEW)	Deposition Transcript of Ian McCulloh, Ph.D., March 10, 2026
Ex.1018 (NEW)	Deposition Transcript of Mr. Loren Johnson, March 11, 2026

I. INTRODUCTION

Patent Owner (“PO”)’s Response (“Response”) does nothing to rebut the Petition’s demonstration that the challenged claims are all invalid over Yurt and Logan. Rather than engage with Yurt’s and Logan’s teachings, PO devotes roughly 30 out of 36 pages to background information and irrelevant prosecution history. Regarding claim construction, PO notes that two terms “require[] clarification” but fails to provide any actual constructions. Only a handful of pages are directed to the allegedly missing limitations of “*substantially real time*” and “*central controller*.” But even those limited arguments fail at least because PO’s declarants admit that those limitations encompass concepts Yurt expressly teaches.

In short, none of PO’s arguments overcome the plain showing of obviousness based on Yurt and Logan—which confirms that a distributed-media delivery system that searches multiple content libraries, facilitates transfer, and provides real-time delivery of the requested content for immediate playback was already well known in the art. The Board should find the challenged claims unpatentable.

II. LEVEL OF ORDINARY SKILL

In its Response, PO proposes that a POSITA as of the priority date would have experience in “(i) cable/satellite delivery architectures (including hybrid fiber-coax realities); (ii) distributed media delivery systems, and (iii) multi-region

orchestration / routing.” Response, 22. Although this proposed level of skill appears higher than Petitioner’s proposed level¹, adopting it would not change the obviousness of the challenged claims. If anything, PO’s proposed level would render the claims even more obvious. *See McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351 (Fed. Cir. 2001) (“keener appreciation of nuances taught by the prior art” assumed when “level of skill is high”). The only effect PO’s higher level of skill has is the disqualification of its own declarants, as explained below.

A. Patent Owner’s declarations should be given little to no weight.

PO’s proposed level of skill would exclude both of PO’s declarants as POSITAs. Neither Mr. Johnson nor Dr. McCulloh meets PO’s ordinary-skill requirements, and each declaration suffers from additional deficiencies that entitle it to little or no weight.

As an initial matter, Mr. Johnson is a named co-inventor and the “sole beneficial owner and controlling assignee of the ’128 patent” according to his declaration. Ex.2007, ¶8. Consistent with this, he explained in his deposition that he stands to benefit financially if the ’128 patent survives this IPR. Ex.1018,

¹ Petitioner proposed “approximately two years of experience working in the field of networked systems for distributing data files from one or more databases” (in addition to a related bachelor’s degree). Petition, 12.

92:22-93:8, 96:2-6. Such direct financial interest creates an “obvious” and substantial bias and thus the Board should “discount” its weight. *See Apple, Inc. v. Motorola, Inc.*, 757 F. 3d 1286, 1321-22 (Fed. Cir. 2014) (“in the context of a party testifying as his own expert, ‘the trier of fact should be able to discount for so obvious a conflict of interest’”) (quoting *Tagatz v. Marquette Univ.*, 861 F.2d 1040, 1042 (7th Cir.1988)).

Beyond his ownership bias, Mr. Johnson does not satisfy PO's POSITA definition. He admitted he is “not an engineer or an expert” in cable/satellite architectures, and had no experience designing such systems, before or after 1998. Ex.1018, 131:10, 133:9-18. He deferred all technical implementation of distributed-media delivery systems and multi-region routing to his co-inventor of the '128 patent, Anand Kelkar. Ex.1018, 135:12-136:2. In short, Mr. Johnson lacks both impartiality and the technical qualifications that PO's definition of a POSITA demands.

Under PO's definition, Dr. McCulloh also fails to qualify as a POSITA. He admitted he had no experience in cable and satellite-delivery architectures in the late 1990's timeframe, stating that he “probably started getting into [cable and satellite] around 2005.” Ex.1017, 172:14-173:2. Dr. McCulloh further admitted he had no experience with distributed-media delivery systems in the relevant timeframe, and none of his subsequent academic work remedies this deficiency.

Ex.1017, 176:18-177:2, 39:2-42:20. Finally, Dr. McCulloh admitted that his analysis of the “background” state of the art did not include any searching or analysis of patent literature at all; nor did he review the Yurt or Logan patents for his declaration. Ex.1017, 74:18-75:14; Ex.2009, ¶4.

Accordingly, neither of PO's declarants provides probative testimony, and the Board should afford the substance of their declarations little to no weight.

III. CLAIM CONSTRUCTION

In a section of the Response entitled “Claim Construction,” PO states that “proper and appropriate claim construction is needed” for the terms “*central controller*” and “*substantially real time*.” Response, 23. Yet it fails to engage in any actual claim construction or propose formal constructions. *Id.* PO asserts only that:

At a minimum, “substantially real time” requires clarification to ensure that Petitioner does not erroneously equate bulk “fraction of real time” delivery with streaming-like sequential playback. Additionally, “central controller ... for routing ... between distribution centers” (and claim 2's search/instruction functions) require clarification to avoid Petitioner's relabeling passive indexing/dispatching as the claimed orchestrator, which creates confusion.

Response, 23.

Beyond these vague statements about what the terms allegedly do not cover,

PO does not present any facts or argument about what actual meanings should be given to these terms. This is “inadequate.” *Intel Corp. v. Qualcomm Inc.*, 21 F.4th 801, 811-12 (Fed. Cir. 2021) (an entirely negative Board construction was “inadequate” because it was “not clear what precisely constitutes” the claim limitation based just on what it excluded).

As noted in the Petition, “[t]he Board is required to construe ‘only those terms...that are in controversy, and only to the extent necessary to resolve the controversy.’” *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)). Here, no constructions are needed because the prior art renders obvious these limitations under both their plain language and PO’s own understanding, as explained below.

A. “*distributing/transmitting...in substantially real time*”

Independent claim 1 recites “[a] system for distributing digital audio files in substantially real time to users connected to a plurality of satellite or TV networks” and “transmitting said digital audio files in substantially real time to said user.”

No construction of distributing or transmitting in “substantially real time” is necessary because the prior art explicitly discloses transmitting data *at least* in “real time.” *See, e.g.*, Ex.1005, Abstract, 1:66-2:4, 4:68-5:3 (teaching distributing “digital audio” in “less than **real time**” and in “a fraction of **real time**,” where the

receiving system may “decompress **in real time** the requested material as it is distributed by transmission system 100”). That should end the analysis.

To the extent PO maintains that a disclosure of “real time” distribution or transmission does not meet the recited “*substantially real time*” limitations, Petitioner also notes that PO’s apparent understanding of this term (as well as the understanding of its declarants) also does not distinguish over the art. Despite not providing a formal construction in the claim construction section of its Response, PO later states that “[s]ubstantially real-time requires playback while transmission is ongoing.” Response, 30. PO’s declarants agreed with this understanding in their depositions.

Mr. Johnson explained that when transmitting in “*substantially real time*,” “the consumer can begin playback, and the rest of the file is still being delivered.” Ex.1018, 38:13-39:20. For example:

Q. So in other words, are you saying here that the user is immediately consuming the content as it’s still being distributed?

A. ... I’m saying that playback begins while the transmission is still continuing ... the correct term that we distinguish in the patent and before our examiner is ‘substantially real time.’ And that just makes a little bit of room for buffering and other things ... the idea is that the consumer requests it, and it begins to play, and that transmission is continuing while it’s playing.

Q. ... [Y]ou're saying that the consumer, when the content is delivered, begins immediately consuming that content while it's still being distributed?

A. Yeah, the consumer can begin playback, and the rest of the file is still being delivered.

Ex.1018, 38:13-39:20.

PO's other declarant, Dr. McCulloh, provided a similar explanation.

Ex.1017, 113:19-115:8 ("A: I would call it realtime if I had no delay or disruption in playing the content. Q: And that would be the case whether or not it was downloaded all fast up front or over time, just faster than the playback is?

A: Yes ... if you can download it and there's no disruption in the content, the music, the song, the show, whatever, I would call that real time from a consumer's perspective.").

As explained below (Section IV.A.2), the prior art explicitly discloses transmitting in "*substantially real time*" when understood as "playback while transmission is ongoing."

B. "*central controller*"

Independent claim 1 recites "*a central controller connected to said network interface of each of said distribution centers for routing digital audio data files between said distribution centers.*" Independent claim 2 further recites a central controller "*receiving file import requests from a requesting distribution*

center...searching the library within at least one other of said distribution centers to locate at least one requested data file...and instructing said other distribution center to retrieve and transmit the requested data file...to said requesting distribution center.”

PO argues that “central controller...for routing...between distribution centers” as well as “claim 2’s search/instruction functions,” “require clarification to avoid Petitioner’s relabeling passive indexing/dispatching as the claimed orchestrator.” Response, 23. PO does not justify its position with the intrinsic record, nor does it propose a construction. Regardless, no construction is needed because the prior art discloses the plain language of the claim. *See, e.g.*, Ex.1005, 4:1-13, 17:54-64 (centralized system is connected to multiple transmission systems that enables requested files to be transferred to where needed upon finding them after searching other libraries); Petition, 48-52 (explaining that Yurt’s dispatching control software/remote order processing and item database 300 collectively operate as centralized functions for coordinating content across libraries, inter-library transfers, and searching for specifically requested items in distributed libraries).

PO’s arguments with respect to the “*central controller*” attempt to import unclaimed requirements into the claim such as “active,” “passive,” “orchestration,” “control plane,” and “per-request.” *See, e.g.*, Response, 3 (asserting the ’128 patent

teaches a system “committed to active, distributed orchestration – not passive distribution”), 4 (“Passive approaches, such as indexing content, staging it in advance, or replicating it based on popularity, can operate without a real-time control plane”), 8, 24, 27 (active and per-request), 29 (attempting to paint Yurt’s controller teachings as passive). These concepts are found nowhere in the ’128 patent, and do nothing to clarify the scope of “*central controller*.” Instead, Patent Owner’s proposed narrowing would render the term less clear and create contradictions in PO’s declarant testimony.

For example, Dr. McCulloh’s declaration describes the ’128 patent as performing “active, distributed orchestration, not passive distribution,” with *passive* approaches including “staging [content] in advance.” Ex.2009, ¶¶12-13. Yet during deposition he described such advance positioning (i.e., staging) as *active* distribution, not passive distribution. Ex.1017, 137:13-22 (“[A]ctive could even be **positioning it so that it is even closer to the user** that’s requesting it...it’s doing something active, something in advance to make this faster”), 139:12-18 (“Q: [I]t sounds like what you’re saying [is] the ’128 patent is described in ways to **push that closer to the edge so that it’s more quickly accessible even if it’s not requested** first...? A: **That’s right**”). This contradiction only reinforces that PO’s attempts to characterize the claimed “*central controller*” in such terms would create more confusion, not less.

Mr. Johnson's testimony does not help clarify the issue. In his declaration, Mr. Johnson states that the challenged claims "are directed to a specific architecture and control-plane behavior" that "orchestrates the operation across independent regional libraries and routing of files between distribution centers." Ex.2007, ¶34. In deposition, Mr. Johnson added yet another concept to explain "control plane" – that "it's a center of the brain"; but this further concept is, again, nowhere in the '128 patent. Ex.1018, 50:9-51:9. Beyond that, Mr. Johnson believes "control plane" was a term "used partly by our attorney." Ex.1018, 88:5-12.

In sum, the Board can resolve the controversy regarding "*central controller*" without construing the term and without adopting PO's confusing pseudo-construction.

IV. YURT RENDERS OBVIOUS "*SUBSTANTIALLY REAL TIME*" AND "*CENTRAL CONTROLLER*" UNDER ANY CONSTRUCTION

PO's Response does not rebut the merits of the combined teachings of Yurt and Logan. PO summarily concludes that Yurt fails to teach the "*substantially real time*" and "*central controller*" limitations without clearly explaining why. PO also incorrectly argues that because different prior art was overcome during prosecution, the Yurt-Logan combination must fail as well. *See, e.g.*, Response, 11-22 (recapping the prosecution history in detail, and arguing that Yurt fails to teach these limitations, without meaningfully addressing the actual relevant

teachings of Yurt); 29-30 (arguing Yurt teaches bulk download and staging/replication not per-request routing, while ignoring Yurt's express teachings otherwise as re-iterated below).

Even though PO's Response fundamentally fails to explain with supporting evidence why Yurt and Logan fail to render obvious the challenged claims, the sections below address each disputed limitation, stepping through the merits of why a POSITA would have found the claims obvious under any construction.

A. Yurt teaches transmitting digital files in “*substantially real time*” to a user.

1. Yurt describes “real time” transmission in similar language to the '128 patent.

Yurt teaches transmitting data in at least real time – and, in fact, better than real time. Selected audio or video files are “sent over any one of several existing communication channels in a **fraction of real time**,” where at the receiving system the material is provided “for **immediate viewing as it is distributed by transmission system 100**.” Ex.1005, 1:66-2:4, Abstract (audio delivered “preferably in less than **real time**”), 4:64-5:9 (user will “decompress in **real time** the requested material”); Petition, 26-27, 43-44.

Independent claim 1 of the '128 patent recites a similar concept: “[a] *system for distributing digital audio files in substantially real time to users connected to a plurality of satellite or TV networks*” and “*transmitting said digital audio files in*

substantially real time to said user.” The ’128 patent specification explains that the receiving system “decodes the requested files, and then provides the decoded files to, for example, the stereo receiver 72 for an **immediate audio playback.**”

Ex.1001, 6:23-35. Yurt’s identical teachings about transmitting audio data at least in real time for “**immediate viewing**” as it is being distributed is dispositive regarding transmitting in “*substantially real time.*” Ex.1003, ¶¶79-80.

PO’s attempts to mischaracterize Yurt’s “fraction of real time” transmission as merely bulk delivery instead of “streaming-like playback” necessarily ignores these dispositive teachings. Response, 23, 29, 30 (arguing fraction of real time is limited to bulk delivery for later playback). In fact, however, Yurt’s “fraction of real time” teachings support the conclusion that Yurt also enables streaming-like playback. This is because a POSITA would have understood “fraction of real time” delivery to be faster than real-time playback requires, which in combination with Yurt’s express teachings (transmitting for immediate playback) results in the audio being “consumed as it is received.” Ex.1003, ¶79; Petition, 26. It follows that when Yurt describes the receiving system buffering some of the material and providing the remainder “for immediate viewing as it is distributed by transmission system 100,” Yurt is describing delivering content so fast that some of it must be buffered so immediate playback can catch up.

Nor do Yurt’s teachings regarding buffering along with immediate playback

alter this conclusion. As PO's declarant Mr. Johnson agreed, "*substantially real time*" allows for "**a little bit of room for buffering** and things." Ex.1018, 39:1-9.

This, again, falls exactly within the scope of what Yurt teaches, where content delivery is faster than playback can handle and therefore the excess is buffered. Ex.1005, 5:4-9; Ex.1003, ¶¶79, 126; Petition, 27, 44. Thus, Yurt plainly teaches real-time transmission, which meets the plain language of "*substantially real time*."

2. Yurt teaches "*substantially real time*" consistent with PO's understanding.

PO states that "[s]ubstantially real-time requires playback while transmission is ongoing." Response, 30; *see also* Ex.1018, 38:13-39:20 ("the consumer can begin playback, and the rest of the file is still being delivered"). Yurt teaches exactly that: decompressing received audio in real time "**for immediate viewing as it is distributed by transmission system 100.**" Ex.1005, 5:3-9. This satisfies PO's "playback while transmission is ongoing." The Petition cited and discussed this specific portion of Yurt in its mapping of "*substantially real time*" in Limitation [1.0]—and arrived at same conclusion:

For example, Yurt's receiving system will "decompress in real time the requested material as it is distributed by transmission system 100." Ex.1005, 4:64-5:9. Yurt's use of high-bandwidth cable networks for fast transmission of audio files mirrors the disclosure in the '128 patent

and **achieves the same result: real-time consumption of audio by the end user.** *See* Ex.1001, 2:67-3:2.

Petition, 26-27.

PO's argument that Yurt **only** describes "bulk 'fraction of real time' delivery" but not "streaming-like sequential playback" ignores Yurt's express teachings. *See* Response, 23. Streaming-like playback is **exactly** what Yurt teaches. *See* Ex.1005, 4:68-5:9; Petition, 17, 26, 43-44. Although the Response quotes the exact portion of Yurt about real-time transmission and immediate playback, PO somehow completely misses this in their conclusion:

As shown in the Yurt patent, the claimed Yurt invention could certainly not deliver computer encoded video content in real time, and instead relied on compressed file formats, that would then have to be buffered and decompressed.

Response, 17.

PO apparently believes that the use of compression somehow means that the content itself cannot be played back in real time. But Yurt says that the content is decompressed and played back for "**immediate viewing as it is distributed by the transmission system 100.**" Ex.1005, 5:5-9. And PO's own declarant, Dr. McCulloh, believes that "there was a need for compression" for transmitting audio

files at the time of filing the '128 patent. Ex.1017, 50:12-51:13.²

Finally, PO's arguments regarding the amendments and arguments during prosecution related to "substantially real-time sequential transmission" are irrelevant. Response, 32-35; *see also* 18 (because the Verbiest rejection was withdrawn, Yurt must fail too). That the Examiner withdrew a rejection over Verbiest – which is not at issue in this proceeding and has a different architecture and approach from Yurt – when the Applicant amended to include "real time" delivery has no bearing on Yurt's plain teaching that the content is played back as it is being transmitted, whether or not compression is used.

B. Yurt teaches a "*central controller*."

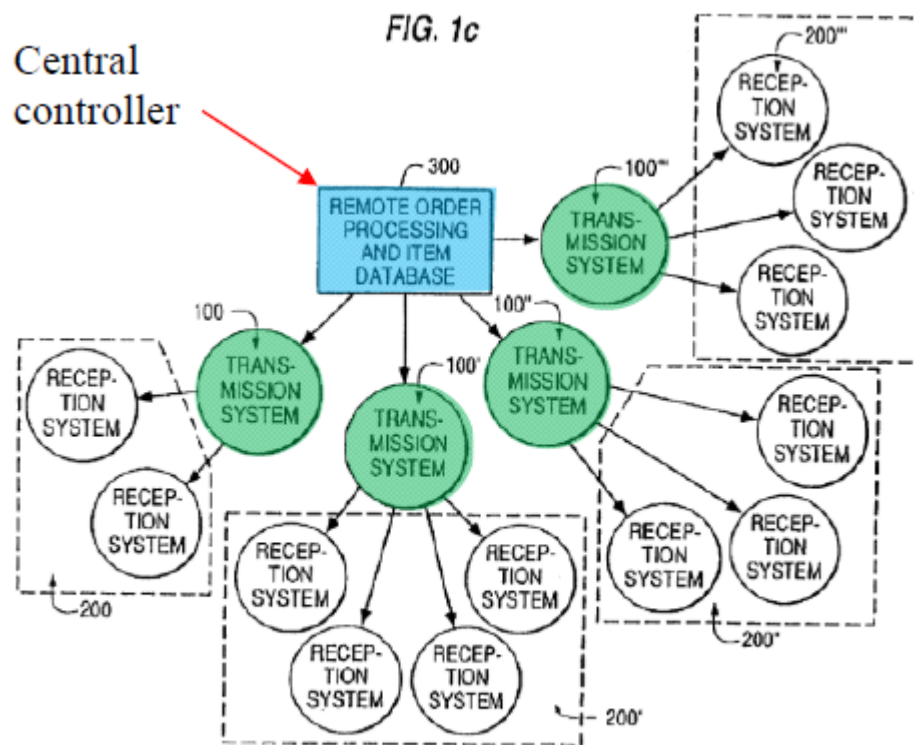
1. Yurt teaches all elements of the claimed "*central controller*."

Claim 1's "*central controller*" only requires that it be "*connected to said network interface of each of said distribution centers for routing digital audio data*

² Additionally, PO's other declarant, Mr. Johnson, could not even decide if real time was from the perspective of the user or the transmission system, let alone the role of compression. *See* Ex.1018, 40:20-44:16; 45:7-11 ("Q: So are you saying that substantially realtime is with reference to transmission systems and not the user? A: It's from the – actually, I really don't know the answer to that question.").

files between said distribution centers” – and that is precisely what the prior art describes.

As explained in the Petition, Yurt describes a central controller connected to multiple distribution centers which causes the various distribution centers to route digital files amongst themselves. Petition, 48-52, 56-59. Each transmission system (each a *distribution center*) is connected to a central “remote order processing and item database 300,” which “enables users to access desired items by remote communication.” Ex.1005, 4:1-13; *see also* Figure 1c (Petition, 49):



Ex.1005, Fig. 1c (annotated); Ex.1003, ¶¶140-142.

As Petitioner's expert Dr. Lippman further demonstrated, given the

centralized role of the remote order processing and item database 300, and that of the “dispatching control software” for “receiv[ing] input from the remote order processing and item database 300 and send[ing] distribution requests to the distribution systems,” it would have been obvious to implement the database 300 and dispatching software with the same physical entity, such as a server, collectively rendering obvious the “*central controller*.” See Ex.1003, ¶¶141-142; Ex.1005, 17:54-57; Petition, 49-50. This is because Yurt’s distribution control software and remote order processing and item database 300 “each exist at a network level above the libraries, transmission systems, and reception systems.” Ex.1003, ¶142; Petition, 50. Further, Dr. Lippman testified that it would have been obvious to “centralize the functions of coordination of the network at the database 300 level,” analogous to Mr. Johnson’s conceptualization of the “*central controller*” as the center of the brain. See *id.*; Ex.1018, 50:9-51:9.

Yurt teaches that the dispatching control software/remote order processing and item database 300 performs the types of operations further required by claim 2 (including receiving requests, searching a library of at least one other distribution center, and instructing the distribution center to retrieve and transmit the file to the requesting distribution center). Yurt explains that if “not all items are contained in each of the compressed data libraries 118, **the dispatching software will keep a list of the available titles in a particular compressed data library 118**” of each

distribution center to “**coordinate** network traffic, **source material library 111 utilization**, source material library 111 contents, and connection costs.” Ex.1005, 17:57-64; Ex.1003, ¶¶141-142; Petition, 54-59. Thus, Yurt’s dispatching software/database 300 locates and facilitates the delivery of requested items from remote transmission systems (*distribution centers*) to a requesting transmission system (*requesting distribution center*) when it is not available at the first transmission system.

Moreover, based on PO’s declarants’ deposition testimony, it appears they expect nothing more from the claimed “*central controller*” either. Dr. McCulloh testified that the central controller only requires “some sort of logic or centralized logic to direct that or control that or optimize over that”; it was “just the logic by which you kind of manage where you’re storing data for the purpose of reducing latency.” Ex.1017, 155:11-17, 154:16-22. Dr. McCulloh further testified that the central controller, after it sends a command for a distribution center to send a file to another distribution center, does not require the file to follow a path through the central controller. Ex.1017, 160:9-162:5; *see also* Ex.1018, 57:9-14 (Mr. Johnson agreeing in principle). These admissions are consistent with Yurt’s dispatching control software and database 300—where a central entity keeps track of what content is at which library, receives a request, determines which remote library has the content, and sends a distribution request to that library to deliver the content

(all without the content itself having to flow through the central entity). *See* Petition, 48-52, 55-59.

In sum, Yurt's straightforward teachings about the dispatching control software/remote order processing and item database 300 resolves any controversy about whether the "*central controller*" limitation is rendered obvious.

2. Yurt teaches a "*central controller*" consistent with PO's understanding.

As noted above, rather proposing a construction for "*central controller*," PO merely argues that it "requires clarification to avoid Petitioner's relabeling passive indexing/dispatching as the claimed orchestrator, which creates confusion." Response, 23. Regardless of this fundamental failure to provide a construction, the Petition and evidence demonstrate that Yurt teaches PO's "orchestrator."

PO's arguments about the central controller being "active," engaging in "orchestration," operating on a "control plane," and operating "per-request," are not in the claims or the '128 patent specification. Even if PO's arguments were consistent with the '128 patent (they are not), Yurt teaches that its distribution system includes a central coordination role that performs centralized coordination of requested content across remote and local distribution centers.

For example, Yurt's dispatching control software/remote order processing and database 300 performs the very functions PO argues are absent, including

“per-request centralized orchestration and routing between independent distribution centers.” Response, 29-30. Yurt’s dispatching control software “receives input from the remote order processing and item database 300 and sends distribution requests to the distribution systems.” Ex.1005, 17:54-57. The dispatching software also facilitates access to titles in other data libraries, and coordinates network traffic, source material library 111 utilization, source material library 111 contents, and connection costs. Ex.1005, 17:57-64. This is centralized coordination of content distribution across multiple libraries, functionally identical to the ’128 patent’s control center 26. *See* Petition, 48-52, 54-59.

Yurt’s centralized, “inter-library” coordination, moreover, is on a per-request basis. “Orders placed on [Yurt’s] systems will be processed and distributed to the appropriate libraries,” so that when “the desired item is found,” it may be transmitted per the user’s specified “time and location.” Ex.1005, 15:18-22. “To complete an order,” Yurt’s database 300 “connects to the compressed data library 118 of choice” and “communicates with the library system control computer 1123” to provide “the user’s account ID, identification of the item for transmission and the chosen destination for the item.” Ex.1005, 15:23-30; *see also* Petition, 48-52, 54-56. Yurt’s operation is on an individual user account basis for content being requested, and therefore “per-request.”

PO’s attempt to distinguish passive versus active systems in the Response

does nothing to clarify the issues. PO argues that Yurt is a “passive distribution” system that merely indexes and stages content based on popularity, while the ’128 patent describes an “active, distributed orchestration.” Response, 3, 29. Yet Dr. McCulloh stated during his deposition that “active” systems like the ’128 patent “could even be **positioning it so that it is even closer to the user** that’s requesting it...it’s doing something active, something in advance to make this faster.” Ex.1017, 135:18-142:7. Thus, PO’s Response argument that Yurt’s “passive” distribution includes advance positioning (i.e., staging content even before it is requested) is fundamentally at odds with Dr. McCulloh’s deposition testimony that advanced positioning is what makes the ’128 patent special.

Despite this confusing testimony, Yurt teaches the active, orchestrated distribution that the Response emphasized as important for the ’128 patent. Yurt provides users with a view of both locally available content and content available at remote libraries. Ex.1005, 17:44-53 (library access interface 121 in reception system 200 includes a local listing of material and a library listing for content from available, remotely accessible libraries). Contrary to PO’s argument, if Yurt’s content were simply pre-staged there would be no need to distinguish between local and remote listings. Instead, Yurt’s local/remote distinction proves that Yurt contemplates on-demand retrieval from remote libraries, just like PO argues the “*central controller*” requires.

Yurt also exhibits the type of “control plane” behavior PO argues the claims require. When pressed to clarify what this “control plane” behavior constitutes, Dr. McCulloh testified that the control plane makes “intelligent decisions” about “where it is going to store content” (Ex.1017, 151:6-11), and Mr. Johnson testified that the control plane term describes a central controller that “orchestrates the operations across the independent regional libraries” such that:

if a user in an independent network in a region makes a request and that content is not there or available, then that is transmitted to the central controller which has a purview of the entire larger network many independent regions and can then take and direct that content to be delivered to that independent network from another region and then to the consumer.

Ex.1018, 50:9-52:11.

Yurt's dispatching and control software describes the very same functionality, coordinating “network traffic, source material library 111 utilization, [and] source material library 111 contents” to achieve “efficient use of the available distribution channels.” Ex.1005, 17:54-66; Petition, 49. Indeed, as already explained, the dispatching control software/remote order processing and item database 300 facilitates “inter-library transfers” when a user-requested item is not available at a local library, so orders from remote systems reach the proper library with the content. Ex.1005, 7:44-48; 15:3-32; Petition, 17, 48-52.

PO also makes several arguments about the prosecution history of the '128 patent that have no bearing on the express teachings of Yurt about the “*central controller*.” Allegedly, because the obviousness grounds based on Verbiest, McCalley, and Williams were overcome in prosecution, Petitioner’s “obviousness argument based on Yurt and Logan” somehow must also fail. Response, 21-22, 32-35. This is simply wrong.

Yurt was not before the Examiner during prosecution.³ Further, the architectures of Verbiest, McCalley, and Williams are materially different from Yurt’s. Verbiest discloses interconnected servers on a backbone broadband network; in McCalley, a hierarchy of local and regional operating centers feeds from a single regional center; and in Williams, the requesting distribution center performs file transfers, rather than the central controller. Ex.1002, 68, 70, 97, 108, 119-121. In contrast, Yurt discloses a centralized database 300 and dispatching

³ PO also argues that because Yurt was cited on the face of Verbiest, which was used to reject the claims, somehow Yurt is very similar to Verbiest and thus redundant to what was already overcome. *See* Response, 12. This argument finds no support in law. The mere appearance of Yurt on Verbiest’s face does not mean the Examiner considered Yurt’s teachings. Yurt’s teachings are manifestly different from Verbiest’s, as shown in this proceeding.

control software, connected to each independent transmission system 100, that coordinates inter-library transfers across those transmission systems. Ex.1005, 4:1-13, 7:44-48, 17:54-66; Petition, 48-52, 54-59. Yurt's architecture discloses the very limitations the Examiner found lacking in the prior art references during prosecution.

Thus, Yurt at least renders obvious not only what the claims actually require, but also PO's additional mischaracterizations of the "*central controller*" limitation.

V. PATENT OWNER FAILS TO REBUT PETITIONER'S MOTIVATION TO COMBINE YURT AND LOGAN

PO's attack on the motivation to combine Yurt with Logan does not reflect the combination in the Petition. For example, PO argues that Logan "does not teach the combination of (i) multi-regional distribution centers; (ii) central controller routing between those centers, or (iii) substantially real-time sequential delivery." Response, 31. Petitioner, however, did not allege that Logan teaches those elements.

The Petition relies on Logan for its teaching of recording a user's data (claim elements [1.1.4.5], [2.1.4.6], and [14.1])—not for the central controller, routing of content not locally available, or real-time limitations. Petition, 19-23 (reasons to combine), 45-48 (Limitation [1.1.4.5]). The Petition explained that the Yurt-Logan combination relied on Logan's known technique for "tracking user/usage data" and

“storing user data and usage information in response to user requests” in combination with Yurt’s existing system teachings. Petition, 19-21.

The inapplicability of PO’s arguments notwithstanding, PO’s contention that “logging is not the same thing as orchestration” is a non sequitur that further confirms PO focused on limitations Petitioner never attributed to Logan. Response, 31. PO conflates the scope of Logan’s role in the combination (adding usage logging) with the scope of the overall system (central controller routing between distribution centers). *See* Petition, 48-52, 54-59; Ex.1005, 4:1-13, 7:44-50, 17:54-66. Logan simply provides implementation details for tracking user and usage data, including storing information about requested audio data in a database in response to user requests for billing, marketing, and adaptively modifying subscriber preferences. Ex.1006, Abstract, 8:49-58. Thus, PO’s argument that the combination was “contradicted by the fact that centralized orchestration across independent regions was not trivial or expected to succeed” is irrelevant to the actual combination. *Contra* Response, 31-32.

In fact, the combination is straightforward: use Logan’s known technique for recording user data with Yurt’s existing item database teachings. *See* Ex.1005, 12:28-57, 10:66-11:4; Ex.1006, 5:33-42, 6:27-35, 8:49-58; Petition, 19-23. Since Yurt already teaches using its item database to track item popularity and request information, no modification to Yurt’s architecture is necessary. Logan merely

confirms when and how to store the user information. Petition, 19-21. A POSITA would have found the combination obvious for all the reasons Dr. Lippman provided. *See, e.g.*, Ex.1003, ¶¶71-72 (“Logan merely makes explicit the POSITA’s understanding of storing user and audio data in response to the user’s request in Yurt”); Petition, 21.

Moreover, PO provides no evidentiary basis to support its argument that the combination would have been unpredictable. Mr. Johnson’s declaration in fact concedes that Yurt “already tracks popularity internally,” which only underscores that adding Logan’s user data-recording teachings would have been a trivial extension of Yurt’s distribution architecture teachings. Ex.2007, ¶35. Dr. McCulloh does not even list Yurt or Logan among the materials he studied, provides no claim-by-claim analysis, and bases his opinions about what “engineers were thinking about” in 1998 on his Department of Defense and military experience, not consumer audio and video distribution. Ex.2009, ¶4.

Accordingly, the Petition demonstrates why a POSITA would have been motivated to combine Yurt and Logan, which stands unrebutted by PO.

Further, PO asserts at the end of the Response that after 2001 major cable operators and streaming services adopted technologies that “reflect the technical direction disclosed, taught and claimed in the ’128 patent.” Response, 35-36. To the extent PO is attempting to invoke secondary considerations of non-

obviousness, PO provides no evidence beyond Mr. Johnson's unsupported testimony and does not attempt to establish nexus with the claims. *See Fox Factory, Inc. v. SRAM, LLC*, 944 F. 3d 1366, 1373 (Fed. Cir. 2019) ("In order to accord substantial weight to secondary considerations in an obviousness analysis, 'the evidence of secondary considerations must have a 'nexus' to the claims i.e., there must be 'a legally and factually sufficient connection' between the evidence and the patented invention.'") (quoting *Henny Penny Corp. v. Frymaster LLC*, 938 F.3d 1324, 1332 (Fed. Cir. 2019)). Any such attempt thus fails.

VI. CONCLUSION

For the foregoing reasons, the Challenged Claims should be found unpatentable.

Respectfully submitted,

Dated: March 30, 2026
HAYNES AND BOONE, LLP
2801 N. Harwood Ave, Ste 2300
Dallas, Texas 75201
Customer No. 27683

/ Scott T. Jarratt /
Scott T. Jarratt
Lead Counsel for Petitioner
Registration No. 70,297

CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. §42.24(d), Petitioner hereby certifies, in accordance with and reliance on the word count provided by the word-processing system used to prepare this Reply, that the number of words in this paper is 5,501. Pursuant to 37 C.F.R. §42.24(d), this word count excludes the table of contents, table of authorities, mandatory notices under §42.8, certificate of service, certificate of word count, appendix of exhibits, and any claim listing.

Dated: March 30, 2026

/Scott T. Jarratt /
Scott T. Jarratt
Lead Counsel for Petitioner
Registration No. 70,297

CERTIFICATE OF SERVICE

The undersigned certifies that, in accordance with 37 C.F.R. §42.6(e) and 37 C.F.R. §42.105, service was made on Patent Owner as detailed below.

Date of service March 30, 2026

Manner of service aedowell@dowellcomlit.com;
richard@mccauleylawgroup.com

Documents served Petitioner's Reply to Patent Owner's Response (IPR2025-00700; Petitioner's Updated Exhibit List; Exhibits Ex.1017 and Ex.1018.

Persons served Anthony Dowell
DOWELL COMMERCIAL LITIGATION
101 Foundry Drive, Suite 1200
West Lafayette, Indiana 47906

Richard T. McCaulley, Jr.
MCCAULLEY LAW GROUP
180 N. Wabash Avenue, Suite 601
Chicago, Illinois 60601

/Scott T. Jarratt /

Scott T. Jarratt
Lead Counsel for Petitioner
Registration No. 70,297