

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AMAZON.COM SERVICES LLC,

Petitioner,

v.

SMART SPEAKER LLC,

Patent Owner.

Patent No. 12,401,721

Filing Date: May 8, 2025

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Inventors: Yehuda Binder and Benjamin Maytal

Title: SYSTEM AND METHOD FOR SERVER BASED CONTROL

PATENT OWNER'S PRELIMINARY RESPONSE

Case No. IPR2026-00276

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Exhibit No.	Description of Document
2001	Memorandum from John A. Squires, Director of USPTO, entitled “Additional Discretionary Institution Considerations – U.S. Manufacturing and Small Business Use of AIA Proceedings,” dated March 11, 2026
2002	Plaintiff’s Disclosure of Asserted Claims and Infringement Contentions in <i>Smart Speaker LLC v. Amazon.com Servs. LLC</i> , Case No. 2:25-cv-00707-JRG (E.D. Tex.), dated September 16, 2025
2003	Photograph of the underside of an Amazon Echo Dot sold in the United States
2004	Article entitled “Watchdog criticizes conditions at Chinese factory that builds Amazon Echo speakers” by Matt Day, The Seattle Times, published June 9, 2018
2005	Article entitled, “Alexa is Infecting All Electronic Devices Near You,” dated June 25, 2018
2006	Article from Amazon Jobs entitled “Devices Operations and Supply Chain,” accessed May 4, 2026
2007	Second Amended Docket Control Order (Dkt. 33) in <i>Smart Speaker LLC v. Amazon.com Servs. LLC</i> , Case No. 2:25-cv-00707-JRG (E.D. Tex.), dated October 29, 2025
2008	Defendant’s Invalidity and Subject Matter Eligibility Contentions in <i>Smart Speaker LLC v. Amazon.com Servs. LLC</i> , Case No. 2:25-cv-00707-JRG (E.D. Tex.), dated December 9, 2025
2009	Appeal Statistics, Patent Trial and Appeal Board, dated October 31, 2025
2010	Patent Trial and Appeals Board (PTAB) data at a glance December 2025

I. INTRODUCTION

On February 28, 2026, Amazon.com Services LLC (“Petitioner”) submitted a petition (Paper 2, “Petition” or “Pet.”) to institute *inter partes* review (“IPR”) of U.S. Patent No. 12,401,721 (EX1001, the “’721 Patent”), challenging Claims 1–15, 17–31, and 33 (the “Challenged Claims”) as obvious over two sets of prior art combinations across sixteen grounds. The Petition should be denied in its entirety because neither set of prior art discloses core limitations of independent Claim 1.

The ’721 Patent claims a first device for use with a Wireless Local Area Network (“WLAN”) in a building. The first device captures human voice data, sends it over the Internet to an external server for processing, and receives distinct “*first*” and “*second*” messages back from the server—the “*first message*” causing the first device to “*sound, using the sounder, digital audio content,*” and the “*second message*” causing the first device to send a “*control message*” to a separate second device over the WLAN. ’721 Patent, Claim 1. This architecture places the “*first device*” at the center of the control scheme: the first device both sounds digital audio content through its own sounder and relays a control message to another device in the home, each in response to a distinct message generated by the server. Two independent deficiencies run through every ground and are dispositive.

First, Grounds 1–8 rely on Lim (EX1005) as the primary reference, and Lim does not disclose the claimed “*first message*” or “*second message.*” Lim’s server

functions as a speech recognition engine that returns recognition data—*e.g.*, confirming that the user spoke a particular brand name—to the first device, which then independently determines what to do next based on its own pre-programmed application logic. That is not a server-generated “*message*” that directs the first device to sound digital audio content, as Claim 1 requires. For the “*second message*,” the Petition alternatively points to Lim’s “command code data” downloaded from a server database. But that is a pre-existing, static codeset—a library of infrared and radio-frequency command codes—that is merely retrieved from a database, not a “*message*” generated by the server “*in response to*” the sending of captured voice data. Moreover, the FIG. 6 workflow on which the Petition relies does not disclose any server generating or sending messages at all. None of the secondary references in Grounds 2–8 remedies these deficiencies.

Second, Grounds 9–16 rely on the combination of Williams (EX1006) and Lim, and Williams does not disclose at least the claimed “*second message*” that causes the first device to “*send, to a second device over the WLAN, a control message . . . in response to the received second message.*” Williams’ “services 218” are merely the provision of informational content—*e.g.*, ordering groceries, identifying songs, or answering spoken questions. Williams’ sole mention of device control, in paragraph [0051], does not disclose any server-to-device messaging path or how any such control would be affected. The Petition concedes that Williams does

not disclose a first device sending a “*control message*” to a second device, and the proposed combination with Lim fails to articulate any coherent motivation for grafting Lim’s first-device-as-relay architecture onto Williams’ system—in which services already flow directly from the server to the second devices. The resulting three-hop architecture is a product of the Petition’s construction, not a reasonable combination of the two references’ actual teachings. None of the secondary references in Grounds 10–16 remedies these deficiencies.

Because Grounds 1–8 and Grounds 9–16 each fail to account for multiple limitations of independent Claim 1, the Board should deny institution of the Petition in its entirety.

II. CLAIM CONSTRUCTION

For the purposes of this Preliminary Response only, Patent Owner agrees with Petitioner that the Board need not construe any claims. Pet. at 4-5.

III. LEVEL OF ORDINARY SKILL IN THE ART

For the purposes of this Preliminary Response only, Patent Owner applies Petitioner’s definition of a POSITA. Pet. at 4.

IV. PETITIONER HAS NOT DEMONSTRATED A REASONABLE LIKELIHOOD OF SUCCESS FOR THE GROUNDS ADVANCED IN THE PETITION, AND THE PETITION SHOULD BE DENIED

The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art, (2) any

differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) so-called secondary considerations where in evidence. *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966); *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1537 (Fed. Cir. 1983).

The Board has held that a failure to identify the differences between the claimed subject matter and the prior art is fatal to an obviousness challenge. *See Apple, Inc. v. Contentguard Holdings, Inc.*, IPR2015-00355, Decision Denying Institution of *Inter Partes* Review, Paper 9 at 9-10 (P.T.A.B. June 26, 2015) (denying institution for failure to identify the differences between the claimed subject matter and the prior art).

In arriving at an obviousness determination, the Board must sufficiently explain and support the conclusions that the prior-art references disclose all the elements recited in the Challenged Claims and a relevant, skilled artisan not only could have made, but would have been motivated to combine all the prior art references in the way the patent claims and reasonably expected success. *Pers. Web Techs., LLC v. Apple, Inc.*, 848 F.3d 987, 994 (Fed. Cir. 2017). That is, even if all the claim elements are found across a number of references, an obviousness

determination must consider whether a person of ordinary skill in the art would have the motivation to combine those references. *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1368 (Fed. Cir. 2016); *Los Angeles Biomedical Rsch. Inst. at Harbor-UCLA Med. Ctr. v. Eli Lilly & Co.*, 849 F.3d 1049, 1067 (Fed. Cir. 2017) (vacating and remanding an obviousness determination, in part, because the Board did not make factual finding as to whether there was an apparent reason to combine all three prior art references to achieve the claimed invention and whether a person of skill in the art would have had a reasonable expectation of success from such a combination). This combinability determination, as supported by an articulated motivation to combine, requires a plausible rationale as to why those prior art references would have worked together. *Broadcom Corp. v. Emulex Corp.*, 732 F.3d 1325, 1335 (Fed. Cir. 2013). Absent some articulated rationale, a “common sense” finding is no different than the conclusory statement “would have been obvious.” *In re Van Os*, 844 F.3d 1359, 1361 (Fed. Cir. 2017). Of additional importance, “knowledge of a problem and motivation to solve it are entirely different from motivation to combine particular references” *Innogenetics, N.V. v. Abbott Lab’ys*, 512 F.3d 1363, 1373 (Fed. Cir. 2008).

35 U.S.C. § 312(a)(3) requires that an IPR petition must identify, “in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to

each claim.” 35 U.S.C. § 312(a)(4) requires that a “petition filed under section 311 may be considered only if . . . the petition provides such other information as the Director may require by regulation.” 37 C.F.R. § 42.104(b)(4) requires that a petition for *inter partes* review “must specify where each element of the claim is found in the prior art patents or printed publications relied upon.” General knowledge, such as applicant admitted prior art, expert testimony, common sense, and other evidence, that is not prior art consisting of patents or printed publications may not be used to supply a missing claim limitation. *See* July 31, 2025 Memorandum from Acting Director Stewart Regarding Enforcement and Non-Waiver of 37 C.F.R. § 42.104(b)(4). The Board may deny an IPR petition that fails to comply with Rule 104(b)(4). *Id.*

A. The Petition Does Not Show that Lim Discloses “*receive, from the server device via the WLAN over the Internet, first and second messages, in response to the sending of the respectively captured first and second human voice data,*” as Required by Claim Element 1[G], or “*sound, using the sounder, digital audio content in response to the received first message,*” as Required by Claim Element 1[H]

Claim 1 requires the first device to “*receive, from the server device via the WLAN over the Internet, first and second messages, in response to the sending of the respectively captured first and second human voice data*” (element 1[G]), “*sound, using the sounder, digital audio content in response to the received first message*” (element 1[H]), and “*send, to a second device over the WLAN, a control message*

that comprises a control data for controlling a first actuator in the second device . . . in response to the received second message” (element 1[I]). Together, these limitations define a voice-command architecture in which the server generates and sends distinct “*messages*” to the first device in response to distinct voice commands, and those messages cause the first device both to sound digital audio content through its own sounder and to relay a control message to a separate second device. As demonstrated below, Lim does not disclose this architecture.

1. Lim’s Server Provides Recognition Data, Not Actuator-Directing “*messages*”

The Petition maps the “*first message*” to Lim’s server’s speech-processing results during the FIG. 4 setup and configuration workflow. Pet. at 28–34. In that workflow, the user speaks a brand name at step 402, and “[t]he resulting spoken syllables may be digitized and presented to a speech recognition means for processing” on “a remote server 500.” EX1005, [0027]. The Petition then argues that the server returns speech-processing results to the first device, and that the first device sounds the next prompt through its sounder—for example, a synthesized spoken message presented as the next prompt in the setup sequence. Pet. at 35–38; EX1002, ¶¶ 132–137.

But Lim does not disclose the server returning any “*message*” to the first device during the FIG. 4 workflow. The text of paragraphs [0027]–[0030] describes

voice input being sent to the server for speech recognition and then proceeds directly to what the first device does next—without identifying any specific data “message” transmitted from server to first device in between. The Petition and Dr. Houh fill this gap by asserting that “it would have been obvious” that “speech processing result(s)” are sent back from the server. Pet. at 28–31; EX1002, ¶¶ 118–120. But the claim requires that the first device “receive” a “message” “from the server device”—and nothing in Lim suggests that whatever the Petitioner characterizes as “speech processing result(s)” constitutes a “message” as claimed, let alone one that causes the first device to “*sound . . . digital audio content.*”

Further, even assuming that a recognition result were returned to the first device, Lim does not disclose “*sound[ing], using the sounder, digital audio content in response to the received first message,*” as required by limitation 1[H]. Whether and what the first device sounds—*e.g.*, which prompt to present—is determined by its own pre-programmed application logic, not by any server “message.” EX1005, [0023]. The server’s contribution is, at most, a binary recognition outcome (*e.g.*, that the spoken word matches a brand name, or that no match was found). The first device then independently decides what to do based on its own local firmware: if speech recognition fails, it repeats step 402 (*id.*, [0028]); if the brand is ambiguous, it presents a short list at step 404 (*id.*); if the brand is uniquely identified, it prompts for a model number at step 406 (*id.*, [0029]); and if model information is insufficient,

it solicits additional information at step 410 (*id.*). At each stage, the server does not direct the sounder; it merely supplies upstream recognition data that the first device's firmware uses as one input in its own decision-making. That is fundamentally different from the claim's requirement that the "first message" itself cause the first device to sound digital audio content.

Moreover, the Petition's mapping does not even identify "*digital audio content*" that is sounded in response to a server "*message*." The Petition points to Lim's synthesized spoken message and, alternatively, to Lim's buzzer. Pet. at 35–38; EX1005, [0019], [0027]. But Lim's buzzer is merely a local attention-getting indicator that forms part of the first device's own prompting routine—it is not "digital audio content" and, critically, it is not sounded "*in response to*" any server-generated "*message*." Likewise, the synthesized spoken message is generated locally by the first device's own voice synthesizer as a setup prompt; it is not delivered by, or sounded in response to, a "*message*" from the server. *Id.* Either way, Lim does not disclose "*sound[ing], using the sounder, digital audio content in response to the received first message.*"

Claim 1's architecture envisions a server that processes voice data and sends a "*first message*" directing the first device to sound specific digital audio content—just as the "*second message*" must direct a specific control action on the second device. In Lim's FIG. 4 workflow, by contrast, the server functions as a speech

recognition engine that returns recognition data to the first device, and the first device's own software logic determines what, if anything, to sound. That is not *“sound[ing], using the sounder, digital audio content in response to the received first message.”*

2. Lim Does Not Disclose a “*second message*” From the Server in Response to “*second human voice data*”

The Petition offers two alternative mappings for the “*second message*” received from the server, and neither satisfies the claim. Pet. at 28–34, 43–46; EX1002, ¶¶ 125–131, 155–158.

First, the Petition argues that the “*second message*” is the “speech processing result(s) that allows the first/controlling device to determine whether to proceed to block 610.” Pet. at 44; EX1002, ¶¶ 155–156. But the Petition's own framing demonstrates why this cannot be the claimed “*second message*”: basic speech-recognition data—*e.g.*, the server confirming what the user said—does not itself constitute a “*second message*” in response to which the first device sends “*a control message*” to a “*second device over the WLAN*,” as required by limitation 1[I]. Claim 1 requires the “*second message*” to be the server's directive that triggers the first device to send a control command to a separate second device. A recognition result that merely “allows the [first] device to determine whether to proceed to block 610” is an intermediate processing step—the functional equivalent of a yes/no gate that

the first device evaluates locally—not a server-generated message that causes the first device to relay a control command to a second device.

Second, the Petition argues in the alternative that the “*second message*” is the “command code data” downloaded from the server at block 610 of FIG. 6. Pet. at 32–33; EX1005, [0036]; EX1002, ¶¶ 127–128. This mapping has two independent deficiencies.

The first deficiency is that the command code data is not downloaded “*in response to the sending of the captured . . . second human voice data*,” as required by limitation 1[G]. The claim requires that the “*second message*” be received from the server “*in response to*” the sending of “*second human voice data*” to the server. But Lim’s command code data is not generated by the server in response to processing voice data. It is a pre-existing codeset—a static library of infrared and radio-frequency command codes—that is merely retrieved from a database. Lim explains that “an app may draw on a library of codesets suitable for commanding the functional operations of various types of appliances of multiple manufactures and/or models” and that “this library . . . may be located externally at a local PC or remote server device accessible to smart device 110 for the download of only those code sets necessary for operation of the configured appliances.” EX1005, [0024]. Lim separately discloses that the “communication of the setup data may comprise downloading of a complete set of command code data into the controlling device

from an off-platform database of codesets located for example . . . on a remote server 500.” *Id.*, [0030]. This is a database-retrieval operation—downloading a pre-packaged set of command codes—not the server generating and sending a “message” in response to processing voice data. Lim’s system is fundamentally an application-based universal remote control: the user configures which appliance to control through a setup dialogue, and the application downloads the appropriate codeset from a database. That is architecturally distinct from the claimed system, in which the server processes voice data and, in response, generates and sends a “message” that causes the first device to send a control command.

The second deficiency is that FIG. 6—the workflow on which the Petition relies for this mapping—does not itself disclose any server generating or sending messages at all. FIG. 6 depicts a local workflow on the first device: solicit the function name (step 604), determine whether the function is uniquely identified (step 606), load the function data (step 610), and transmit the signal from the first device to the appliance (step 614). EX1005, [0035]–[0036], FIG. 6. The server’s only roles in this workflow are as an off-screen speech recognition engine and as a database from which codesets may be downloaded. Nothing in Lim’s FIG. 6 discloses the server generating or sending any “message” to the first device—let alone a “*second message*” sent “*in response to*” the sending of “*second human voice data*,” as the claim requires.

3. All Other Grounds Relying on Lim Alone Fail for the Same Reasons

Claims 5–6, 9–15, 17, 21–22, 24–31, and 33 are challenged in Ground 1 alongside Claim 1. Because the Petition’s Ground 1 mapping fails to establish that Lim discloses the “*first message*” and “*second message*” limitations of Claim 1, or that Lim discloses “*sound[ing], using the sounder, digital audio content in response to the received first message,*” Ground 1 necessarily fails for every dependent claim that incorporates Claim 1’s limitations.

Additionally, Grounds 2–8 each rely on Lim as their foundation and add one secondary reference—Wittenberg (EX1008), Gruber (EX1009), Benesty (EX1010), Rossing (EX1014), Goldsmith (EX1040), Chatterjee (EX1012), and Rosenberger (EX1013), respectively—to address particular dependent-claim limitations. Pet. at 52–69. None of these secondary references is cited for, or remedies, Lim’s failure to disclose the “*first message,*” the “*second message,*” or the “*sound[ing] . . . digital audio content in response to the received first message*” limitations. Because Grounds 2–8 inherit Ground 1’s deficiencies in full, they fail for the same reasons, and the Board should deny institution on Grounds 1–8.

B. The Petition Does Not Show that any Combination of Williams and Lim Discloses “receive, from the server device via the WLAN over the Internet, first and second messages, in response to the sending of the respectively captured first and second human voice data,” as Required by Claim Element 1[G] and “send, to a second device over the WLAN, a control message that comprises a control data for controlling a first actuator in the second device . . . in response to the received second message,” as Required by Claim Element 1[I]

Claim 1 requires the first device to “receive, from the server device via the WLAN over the Internet, first and second messages, in response to the sending of the respectively captured first and second human voice data.” Pet. at 84–88. Claim 1 further requires the first device to “send, to a second device over the WLAN, a control message that comprises a control data for controlling a first actuator in the second device . . . in response to the received second message.” Pet. at 89–91. These limitations require two distinct “messages” from the server—a “first message” that causes the first device to sound digital audio content, and a “second message” in response to which the first device sends a control message to a second device over the WLAN. Williams discloses neither.

1. Williams Does Not Disclose Sending a “second message” to the First Device that Causes the First Device to “send, to a second device over the WLAN, a control message . . . in response to the received second message”

The Petition’s mapping of the “second message” rests on Williams’ disclosure that its server’s applications 120 “may use the information from the event

notifications 216 to initiate or customize services 218 on behalf of users associated with the home 102,” and that “[s]uch services may be provided through any of the media devices 106 located in the home, as well as through other application devices 220.” Pet. at 86–87; EX1006, [0036]. The Petition then asserts that a POSITA would have understood that providing “services 218 involves sending information related to the services 218 (e.g., a control message).” Pet. at 86; EX1002, ¶¶ 385–386.

First, Williams’ “services 218” are not “*messages*” sent to a first device in response to a voice command that cause the first device to “*send, to a second device over the WLAN, a control message . . . in response to the received second message.*” Williams explains that the server’s applications 120 “may use the information from the event notifications 216 to initiate or customize services 218 on behalf of users associated with the home 102.” EX1006, [0036]. Williams then provides several examples of these “services”: ordering groceries ([0044]), purchasing movie tickets ([0045]), identifying songs ([0046]–[0047]), answering spoken questions ([0048]), providing driving directions ([0049]), and looking up flight information ([0050]). In each example, the “service” is the delivery of informational content to the user—e.g., placing an order, providing audio answers, or presenting a recipe. *See id.*, [0044]–[0050]. Williams’ services 218 thus do not cause the first device to “*send, to a second device over the WLAN, a control message . . . in response to the received*

second message,” because services 218 are merely the provision of informational content.

Second, the Petition’s mapping of the “*second message*” relies on two distinct Williams disclosures, neither of which discloses a server-generated control message. For the voice-command input, the Petition cites paragraph [0051], which states that Williams’ system “may accept spoken commands from a user regarding on-premises devices, and may respond by interacting with such devices through available network connections,” and that an application would “allow a user to control various on-premises devices and equipment.” Pet. at 70, 78; EX1006, [0051]; EX1002, ¶¶ 322–323. That passage merely states what the system can do—accept voice commands and interact with devices—but says nothing about how. Critically, [0051] is silent on whether the server generates any control “message,” what form it would take, how it would reach a particular device, or what actuation would result. And for the server’s response—the actual “*second message*”—the Petition does not identify any specific server-generated message; it instead maps the “*second message*” to Williams’ general disclosure that “[s]uch services may be provided through any of the media devices 106 located in the home.” Pet. at 86; EX1006, [0036]. But again, “services 218” are content-delivery functions, not directed control “*messages*.”

Third, the Petition’s own framing confirms that Williams alone does not disclose the claimed “*second message*.” To bridge the gap between Williams’

“services” and the claimed control “*message*,” the Petition inserts the parenthetical “(e.g., a control message)” after “services 218” and then cites three references from outside Ground 9 for purportedly common implementations. Pet. at 86, 90 (citing EX1019, 3:19–22; EX1008, Claim 1; and EX1012, [0012]). Including Lim, Ground 9 is therefore, in substance, a five-reference obviousness combination presented as a two-reference combination. As to the claimed “*second message*,” the Petition has not shown “where [this] element of the claim is found in the prior art patents or printed publications relied upon” for Ground 9. *See* 37 C.F.R. § 42.104(b)(4); *see* July 31, 2025 Memorandum from Acting Director Stewart Regarding Enforcement and Non-Waiver of 37 C.F.R. § 42.104(b)(4) (general knowledge, expert testimony, and common sense “may not be used to supply a missing claim limitation”).

Fourth, FIG. 2 of Williams further confirms this deficiency. FIG. 2 shows “services 218” flowing from applications 120 to media devices 106 and application devices 220, but these arrows represent the general availability of services through home devices—*i.e.*, the user experiences the service via a particular device. EX1006, [0036], FIG. 2. For instance, Williams explains that a music identification application “may identify the song the user is currently listening to, and in response may provide information about related articles, offer samples, suggest related music and playlists, or present information allowing the user to purchase individual music tracks.” *Id.*, [0047]. Providing such informational content through a device,

however, is fundamentally different from sending a directed control “*message*” to a device in response to a voice command.

2. The Williams-Lim Combination Does Not Disclose a Client-Device-to-Controlled-Device Control Message Path Over the WLAN

Claim 1 requires the first device to “*send, to a second device over the WLAN, a control message that comprises a control data for controlling a first actuator in the second device . . . in response to the received second message.*” The Petition concedes that Williams does not disclose this. Pet. at 90 (“To the extent that Williams does not disclose that the control message is sent from the first device, it would have been obvious to a POSITA that the Williams-Lim combination discloses this element.”). The Petition then cross-references its earlier discussion of Lim without further analysis. *Id.* (citing “Supra §§ IV.I.2; IV.A.2.j”). This concession is dispositive.

In Williams, services 218 flow directly from the cloud server (application 120 running on server 400) to the second devices (media devices 106 and application devices 220). EX1006, FIG. 2, [0036], [0042]. The interface device 116—the purported “*first device*”—is a voice-capture and audio-playback endpoint. There is no arrow, no data flow, and no textual description in Williams of the interface device 116 communicating with media devices 106 or application devices 220 to relay control commands. Williams’ own architecture thus has the server communicating

directly with the second devices, making it unnecessary—and contrary to Williams’ design—to route control commands through the first device.

The Petition’s reliance on Lim to fill this gap fails because there is no coherent motivation for grafting Lim’s first-device-as-relay architecture onto Williams’ system. In Williams, services 218 flow *directly* from the cloud server to the second devices. *Id.*, FIG. 2, [0036], [0042]. The server already communicates with devices in the home through the network—there is no architectural need to route control commands through the interface device 116. The Petition’s stated motivation for the combination is that routing commands through the first device results in a “more simplified, reliable, and secure system that is easier to scale, troubleshoot, and manage.” Pet. at 71–72, 88; EX1002, ¶ 388. But Williams’ architecture achieves exactly the opposite: the server’s direct communication with the second device *is* the simplified architecture. Inserting the first device as an intermediary adds complexity—an additional hop, an additional failure point, and additional connection-management requirements—without any disclosed benefit in Williams’ cloud-based system. Indeed, the Petition’s proposed restructuring would require dismantling Williams’ existing server-to-device communication path and replacing it with a three-hop architecture that Williams’ own design actively discourages. The Petition does not explain why a POSITA, starting from Williams’ system with direct

server-to-device communication, would be motivated to interpose the first device as a command relay.

The combination thus creates a system found in neither reference: Williams' cloud server would need to send a "*second message*" to the interface device 116, which would then relay a "*control message*" to the second device over the WLAN—but Williams does not disclose a server sending a "*second message*," and the three-hop architecture of the Williams-Lim system is a product of the Petition's construction, not a reasonable combination of the two references' actual teachings.

3. All Other Grounds Relying on the Williams-Lim Combination Fail for the Same Reasons

Claims 5–6, 9–15, 17, 21–22, 24–29, 31, and 33 are challenged in Ground 9 alongside Claim 1. Because the Petition's Ground 9 mapping fails to establish that the Williams-Lim combination discloses the "*first message*" and "*second message*" limitations of Claim 1, or a first-device-to-second-device message path over the WLAN, the Petition necessarily fails to show that the Williams-Lim combination renders obvious any of the dependent claims that incorporate Claim 1's limitations.

Additionally, Grounds 10–16 each rely on the Williams-Lim combination as their foundation and add one secondary reference—Wittenberg (EX1008), Gruber (EX1009), Rosenberger (EX1013), Benesty (EX1010), Rossing (EX1014), Goldsmith (EX1040), and Chatterjee (EX1012), respectively—to address particular

dependent-claim limitations. Pet. at 98–102. None of these secondary references is cited for, or remedies, Williams’ failure to disclose the “*first message*,” the “*second message*,” or the first-device-to-second-device message path limitations of Claim 1. Accordingly, Grounds 10–16 fail for the same reasons as Ground 9.

In sum, the Petition has not identified where in Williams the “*first message*” and “*second message*” limitations of Claim 1 are found. Williams’ “services 218” are not “*messages*”—they are the informational content delivered through home devices. Further, the Petition concedes that Williams does not disclose a first device sending a “*control message*” to a second device, yet the combination with Lim fails to cure this deficiency. Because these deficiencies are present in every ground relying on the Williams-Lim combination, the Board should deny institution on Grounds 9–16. Because the Petition has not shown “where each element of the claim is found in the prior art patents or printed publications relied upon” as required by 37 C.F.R. § 42.104(b)(4), institution of Grounds 9–16 should be denied.

V. CONCLUSION

For the foregoing reasons, Patent Owner respectfully requests that the Board deny institution of the Petition in its entirety.

Respectfully submitted,

Dated: June 5, 2026

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CERTIFICATE OF WORD COUNT

The undersigned hereby certifies that the portions of the above-captioned PATENT OWNER'S PRELIMINARY RESPONSE has 5,013 words in compliance with the 14,000 word limit set forth in 37 C.F.R. § 42.24. This word count was prepared using Microsoft Word for Office 365.

Respectfully submitted,

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