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IN THE UNITED STATES DISTRICT COURT FOR THE CENTRAL DISTRICT OF CALIFORNIA

SONOS, INC., *Plaintiff-Counterclaim Defendant,* vs. GOOGLE LLC, *Defendant-Counterclaimant.*	CASE NO. 2:20-cv-00169-JAK (DFMx) **DEFENDANT'S OPENING CLAIM CONSTRUCTION BRIEF** **JURY TRIAL DEMANDED** Judge: Hon. John A. Kronstadt Complaint Filed: Jan. 7, 2020

GOOGLE EXHIBIT 1030
GOOGLE v. SONOS
IPR2025-01590

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I. INTRODUCTION

The parties dispute ten constructions across six of the asserted twelve patents (ten Sonos patents and two Google patents). Google's proposed constructions are rooted in the intrinsic record and seek to assist the jury in understanding the relevant claim language. And Google raises indefiniteness only where especially applicable, challenging just one of Sonos's ten patents on that basis.[1] In contrast, Sonos's proposals are a misuse of the claim construction process, seeking to rewrite claim language, present factual invalidity disputes under the guise of claim construction, and launch multiple meritless indefiniteness challenges to both asserted Google patents. But claim construction is not a shortcut to avoid litigating the merits of the parties' factual disputes. Accordingly, Google's proposed constructions should be adopted, and Sonos's proposed constructions should be denied.

II. SONOS'S '896 AND '883 PATENTS

A. "user input indicating that a user wishes to set up a playback device to operate on the secure WLAN" ('896 patent cls. 1 and 13)

Google	Sonos
"an objectively verifiable indication that a user wishes to set up a playback device to operate on the **same** secure WLAN **used by the computing device**" Otherwise: Indefinite	"an objectively verifiable indication that a user wishes to set up a playback device to operate on the secure WLAN, **which does not require that the user select the secure WLAN**"

The parties agree that the "user input" requires "an objectively verifiable indication" of the user's wishes—guesses or assumptions are not enough. The parties' conflicting constructions, however, reflect three separate claim construction disputes:

(1) whether the Court should specify that "the secure WLAN" refers to "the

[1] Google previously challenged two other terms in dependent claims as indefinite: "relative volume loudness difference" ('014 patent claim 42) and "an individual future time" ('001 patent claims 30-31). Sonos dropped its assertion of those dependent claims on November 10, 2025, rendering Google's indefiniteness challenges for those claims moot.

same secure WLAN used by the computing device," as requested by Google;

(2) whether the "user input" must provide "an objectively verifiable indication" that "a user wishes to set up a playback device to operate on the same secure WLAN used by the computing device" as requested by Google, and not just an objectively verifiable indication that "a user wishes to set up a playback device"; and

(3) whether the Court should add a limitation that the objectively verifiable indication "does not require that the user select the secure WLAN," as requested by Sonos.

Google's request is derived from the claim language itself and will assist the jury in understanding an otherwise convoluted claim limitation. In contrast, Sonos's request injects confusing language that would likely mislead the jury.

1. *"The Secure WLAN" Is the Same WLAN Used By The Computing Device*

The asserted independent claims 1 and 13 require "caus[ing] the computing device to perform functions comprising[,] while operating on ***a*** secure wireless local area network (WLAN) … receiving … user input indicating that a user wishes to set up a playback device to operate on ***the*** secure WLAN." Ex.[2] 1, '896 patent, cls. 1, 13 (emphasis added). This claim language requires the "computing device" to perform two steps: "operat[e] on a secure wireless local area network (WLAN)" and "receiv[e] … user input indicating that a user wishes to set up a playback device to operate on ***the*** secure WLAN." *Id*. (emphasis added). The use of antecedent basis indicates that "the secure WLAN" is referring to the same secure WLAN that the computing device is operating on. *See University of Ma. V. L'Oreal S.A.*, 36 F.4th 1374, 1381 (Fed. Cir. 2022) (a reference to "the" element is used "for repeated, not departing from, the claim's prior reference to" the same element). And rather than requiring the jury to

[2] All cites to "Ex." herein are to exhibits to the Declaration of Ognjen Zivojnovic, submitted herewith.

learn about esoteric patent concepts, such as antecedent basis, construing the term to require "the same secure WLAN used by the computing device" will simplify the jury's analysis. *See Avid Technology, Inc. v. Harmonic, Inc.*, 812 F. 3d 1040, 1050 (Fed. Cir. 2016) (identifying the "aim of claim construction" to be "to give the finder of fact an understandable interpretation of claim scope to apply to the accused systems").

2. *"Objectively Verifiable Indication" Must Reflect User's Wish To Use Same WLAN For Playback Device And Computing Device*

The parties agree the "user input" requires "an objectively verifiable indication that a user wishes to set up a playback device"—not an assumption or guess as to user intent. Shoemake Decl[3] ¶49. Computers are algorithmic systems that execute only the instructions they are programmed to perform—in this case upon user input. The specification repeatedly emphasizes that the claimed configuration process has to be manually authorized by a human user. *See, e.g.*, Ex. 1, '896 patent, 3:20-23; 3:42-46; 12:21-24; Shoemake Decl ¶50. The specification is also clear that configuration cannot proceed without this user input. Ex. 1, '896 patent, 2:37-44; Shoemake Decl ¶50. Indeed, the purpose of the claimed "graphical user interface (GUI)" is specifically there to allow the user to provide such an "objectively verifiable indication" rather than requiring the device to interpret or assume the user's intentions. Shoemake Decl ¶49.

But the parties disagree on whether this "objectively verifiable indication" only has to indicate that "a user wishes to set up a playback device" (Sonos's apparent proposal) or must further indicate that the device is to be set up on "the same secure

[3] Citations herein to "Shoemake Decl" are to the Declaration of Dr. Matthew Shoemake, submitted herewith as Exhibit 19 to the Declaration of Ognjen Zivojnovic.

WLAN used by the computing device" (Google's proposal).[4] The claim language, logic, and other intrinsic evidence support Google's proposal.

Starting with the claim language, there is no basis for contending that, or specification disclosure to support that, the claims require an "objectively verifiable indication" that the user wishes "to set up a playback device" (the first part of the limitation) but not to operate on the secure WLAN (the second part of the limitation). Shoemake Decl ¶54. Sonos agrees that the "user input" must be an "objectively verifiable indication" to overcome indefiniteness during the previous ITC investigation.[5] The same logic that compelled Sonos to agree that claim 1 requires an "objectively verifiable indication" in the first instance equally applies to the user's wish for the playback device to "operate on the secure WLAN." If no "objectively verifiable indication" of the user's wish for the playback device to "operate on the secure WLAN" is required, then infringement would turn on whether the user subjectively intends (while providing the "user input") to set up the playback device on the same secure WLAN used by the computing device (e.g., a work-related WLAN), on a different secure WLAN (e.g., a WLAN for personal activities), or on

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[4] Despite Google's repeated requests for clarity, Sonos's position on this issue remains unclear. When Google asked whether, under Sonos's proposed construction, "the 'objectively verifiable indication' must indicate both that 'a user wishes to set up a playback device' and that the 'user wishes to set up a playback device to operate on the secure WLAN'" or "only needs to address that the user 'wishes to set up a playback device,'" Sonos simply responded "[i]t is neither" and refused to provide any detail. Ex. 2, Email from D. Smith dated June 23, 2025.

[5] In its opening Markman brief in the previous ITC investigation, Sonos alleged that the claim language provides "an objectively verifiable indication, which is the receipt by the claimed 'computing device' of a particular type of 'user input'." Ex. 3, 337-ITA-1191, EDIS DOC. Id. 713,881 (Sonos Opening Claim Construction Brief), at 30-31; *see also*, Ex. 4, 337-ITA-1191, EDIS DOC. Id. 721,265 (Order No. 20: Construing the Terms of the Asserted Claims of the Patents at Issue), at 33-35 (reciting the same "objectively verifiable indication" requirement and determining the claim is not indefinite).

an unsecured WLAN (e.g., a WLAN reserved for guests). Shoemake Decl ¶57. The '896 patent itself recognizes that a single home may have multiple WLANs. Ex. 1, '896 patent, 10:31-24. Any interpretation where the choice of WLAN for the playback device depends on the user's subjective intent would render the '896 patent indefinite and invalid. *See Datamize LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1352, 1356 (Fed. Cir. 2005) (finding the claim phrase "aesthetically pleasing" indefinite because user "selection[s]" to achieve that result were not "objectively verifiable"); *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1373 (Fed. Cir. 2014) (holding the claim phrase "unobtrusive manner" indefinite because the specification did not "provide a reasonably clear and exclusive definition, leaving the facially subjective claim language without an objective boundary").

In addition, Sonos's apparent position that the claim language is met by any "objectively verifiable indication that a user wishes to set up a playback device" as long as the playback device is eventually set up on "the secure WLAN" improperly deletes the "to operate on the secure WLAN" language from the claims. *Wasica Finance GmbH v. Continental Automotive Systems, Inc.*, 853 F.3d 1272, 1288 n.10 (Fed. Cir. 2017) ("It is highly disfavored to construe terms in a way that renders them void, meaningless, or superfluous."). Subsequent claim limitations that occur "after receiving the user input" separately specify that the playback device receives "network configuration parameters" for "the secure WLAN" and that the playback device then joins "the secure WLAN." Thus, when the claims require "user input indicating that a user wishes to set up a playback device ***to operate on the secure WLAN***," the recitation of "to operate on the secure WLAN" must mean something more than that the playback device eventually joins that WLAN; otherwise, that language would be superfluous. Rather, the "user input" limitation specified, as proposed by Google, that the "user input" itself is an "objectively verifiable indication that a user wishes to set up a playback device" specifically on "the secure WLAN." Ex. 1, '896 patent, cl. 1.

The specification further supports Google's position. In the specification, the user input to commence the setup process will always result in setting up the playback device to operate on the same secure WLAN as the computing device (i.e., to use the same network configuration parameters as the computing device). *See* Ex. 1, '896 patent, 14:1-14; Shoemake Decl ¶¶55-56. Thus, the computing device does not make assumptions or interpret what WLAN a "user wishes" to use—contrary to Sonos's argument, the user input ***always*** results in configuring the playback device to operate on the same secure WLAN as the computing device. Shoemake Decl ¶55.

Accordingly, the claim language and other intrinsic evidence supports interpreting this claim limitation to require not just an "objectively verifiable indication that a user wishes to set up a playback device" but also "objectively verifiable indication that a user wishes to set up a playback device ***to operate on the same secure WLAN used by the computing device***"; otherwise, the claim is indefinite. *Datamize*, 417 F.3d 1342, at 1350.

3. *Sonos's Additional Limitation Injects Confusion*

Sonos' addition of a "which does not require that the user select the secure WLAN" limitation is unnecessary and only injects confusion, because the construction is itself subject to two different, mutually exclusive interpretations (one permissive and one exclusionary), neither of which is supported by the intrinsic and extrinsic record.

Permissive. First, Sonos's construction could be interpreted to ***permit*** embodiments. In other words, Sonos's construction would include both where (1) the user indicates that they want to setup a playback device but ***does not*** "select the secure WLAN"'; or (2) the user indicates that they want to setup a playback device and "select[s] the secure WLAN." Shoemake Decl ¶59. This interpretation runs the risk of confusing the jury into conflating that the user input must "indicat[e]" that the playback device is to operate specifically on "***the*** secure WLAN" (as explained above, always required) with whether the user must expressly "select" that WLAN (per

Sonos's additional limitation, not always required). Thus, this interpretation implies that the "user input" need not even "indicat[e]" that the playback device is to operate specifically on "the secure WLAN." As explained in the prior section, that is wrong, the claimed "objectively verifiable indication" must indicate both (1) that the user wishes to set up the playback device, and (2) that the user wishes to set up the playback device to operate on the same secure WLAN as the computing device.

Exclusion. Alternatively, Sonos's additional limitation could be interpreted to ***exclude*** embodiments where "the user select[s] the secure WLAN" altogether. *Id*. ¶59. Such an exclusion would require clear and unmistakable disclaimer, which does not apply here. *Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1366-68, (Fed. Cir. 2012).

Setting aside the confusion created by Sonos's specific word choice, the larger issue is that Sonos's construction seeks to dictate what form the "user input" must take, e.g., whether a confirmation is sufficient or whether an active selection from a list is required. The intrinsic or intrinsic records only require that the "objectively verifiable indication" must "indicate the user wishes to set up the playback device to operate on the secure WLAN." What form of user input is required to meet this limitation is context dependent. In the context of the specific embodiments in the '896 specification, where the playback device is always set up to operate on the same secure WLAN as the computing device, a simple confirmation (e.g., by pressing "OK" or otherwise "trigger[ing] Activation UI" (Ex. 1, '896 patent at Figs. 3B, 4A)) may be sufficient to "indicate the user wishes to set up the playback device to operate on the secure WLAN." Shoemake Decl ¶58. In other contexts, however, including if multiple different WLANs (including potentially unsecured WLANs) are present, the "objectively verifiable indication" may require more than a simple confirmation, including possibly "that the user select the secure WLAN." *Id*. Because the nature of the required "objectively verifiable indication" is thus context specific, Sonos's attempt to dictate that the user input "does not require that the user select the secure

WLAN" as a matter of claim construction and thus under ***any*** circumstances is improper.

B. "The computing device of claim 1, further comprising program instructions … that … cause the computing device to perform functions comprising:" ('883 patent claim 13)

Google	Sonos
Plain and ordinary meaning	"The playback device of claim 1, further comprising program instructions stored on the non-transitory computer-readable medium that, when executed by the at least one processor, cause the playback device to perform functions comprising:"

Claim 13 of the '883 patent is a dependent claim that further defines "[t]he computing device of claim 1." Sonos now asks the Court to fundamentally rewrite claim 13 to instead be directed to "[t]he playback device ~~computing device~~ of claim 1, further comprising program instructions … that … cause the playback device ~~computing device~~ to perform functions." To rewrite the claim, however, Sonos must show that both of these changes address "obvious minor typographical and clerical errors"; that "the correction is not subject to reasonable debate based on consideration of the claim language and the specification"; and that "the prosecution history does not suggest a different interpretation of the claims." *See Novo Indus., L.P. v. Micro Colds Corp.*, 350 F.3d 1348, 1357 (Fed. Cir. 2004). Sonos cannot meet this high burden to justify its proposed rewriting of the claim language.

Starting with the claim language, there are no "obvious minor typographical and clerical errors." It makes sense that claim 13 is directed to "[t]he computing device of claim 1," as recited in its plain language. First, claim 13 refers to the "computing device" not just once, but twice – thus, under Sonos's theory, applicant would have had to make the same "minor typographical" error not once, but twice. Second, claim 1 recites both "a computing device" and "a playback device." The "computing device" is indispensable for the automatic configuration process recited in claim 1—it, *inter alia*, detects the playback device entering a setup mode, establishes an initial communication path with the playback device, and sends

network configuration parameters to the playback device so that it can connect to the secure WLAN. In fact, Sonos prosecuted and obtained a series of patents that claim the "computing device." *See, e.g.*, Ex. 1, '896 patent, cls 1-19; Ex. 6, '310 patent (parent of the '883 patent), cls 1-20. Since claim 1 recites "a computing device," it is then unsurprising that claim 13 further defines "[t]he computing device of claim 1." Third, nothing in the prosecution history suggests that there was any "error." Sonos filed claim 13 as written and was granted the claim it sought exactly as written directed to "[t]he playback device of claim 1." Ex. 5, '883 File History, Application (March 11, 2019) at 37-38; Amendment (July 22, 2019) at 5; Applicant Arguments/Remarks (July 22, 2019) at 12; Notice of Allowance (September 24, 2019) at 2-3.

During the parties' meet and confer, Sonos pointed to other requirements in claim 13 that allegedly lead to nonsensical results if the claim is allowed to stand as written. But under well-established Federal Circuit precedent, Sonos prosecuted and obtained an oddly written claim and is not now allowed to redo its patent prosecution efforts by having the Court rewrite the claim. For example, in *Chef America, Inc. v. Lamb-Weston, Inc.*, the parties disputed on the term "heating the resulting batter-coated dough ***to*** a temperature in the range of about 400 degrees F. to 850 degrees F." 358 F.3d 1371, 1373 (Fed. Cir. 2004). The patentee argued that the term should be construed as "heating the dough ***at*** the range of about …" because the dough would be burned and the claim would not make sense. *Id*. The Federal Circuit disagreed and ruled that the word is plain English whose meaning is clear and unquestionable. *Id*. at 1374. The Federal Court reiterated that courts may not redraft claims to make them operable or sustain their validity, even if the result is nonsensical. *Id*. (citing *Process Control Corp. v. Hydreclaim Corp.*, 190 F.3d 1350, 1357 (Fed. Cir. 1999) ("a nonsensical result does not require the court to redraft the claims")).

Here, as in *Chef America*, the plaining English meaning of "the computing device" is clear and unquestionable. It has antecedent basis in claim 1, from which

claim 13 depends. Whether subsequent limitations are thereby rendered illogical does not detract from claim 1 reciting "a computing device" and claim 13 then unambiguously referring back to "[t]he computing device" not once but twice. Sonos has not identified, for example, any obvious typos to those recitations or clear mistakes in the prosecution history. The term "the computing device" means what it says—it's "the computing device," not "the playback device"—and there is no basis to swap those terms both times they appear in the claim 13 preamble.

III. SONOS'S '001 PATENT

A. "audio information that is representative of the [audio content / particular audio content]" ('001 patent claims 12, 18, 23, and 29)

Google	Sonos
Indefinite	No construction necessary

These terms of the '001 patent are indefinite because a POSITA could not determine with reasonable certainty what constitutes "audio content," how "audio information" differs from "audio content," or how "audio information" is "representative of the audio content" or of "the particular audio content."

The term "audio content" has no common definition in the audio playback context because it has disparate meanings depending on the sub-context in which it is used. Shoemake Decl ¶64. For example, "audio content" might refer to audible sound (*e.g.*, the sound of a person's voice as they are uttering a phrase), sound that is stored or contained in a digital file (*e.g.*, a WAV or MP3 file that contains a recording of that sound), or information that represents a sound (*e.g.*, a digital or analog audio signal). *See id.* ¶¶64, 66; *see also* Ex. 7, Almeroth Reb. Decl. ¶72 (citing various disparate definitions of "content" and "audio content"); Ex. 8, Almeroth Dep. Tr. at 77:13-16 ("The sentence, 'Hello, how are you' that I just uttered is audio content."). Given these disparate possibilities, a POSITA would need to turn to the specification for guidance as to the meaning of "audio content" and what it means for "audio information" to be "representative of" such content.

But the specification does not help—it does not include or describe the term "audio content," nor does it shed light on how "audio content" can be represented by "audio information." *See TVnGO Ltd. (BVI) v. LG Elecs. Inc.*, 861 F. App'x 453, 458 (Fed. Cir. 2021) (holding claim terms indefinite where "[n]either phrase [was] mentioned, let alone defined, in the shared specification"). While the specification uses other terms such as "audio program," "audio work," and "audio track," it does not equate any of those terms to "audio content" or "audio information," much less explain how "audio information" can be "representative of" the undefined audio content. In fact, the specification does not describe "audio information" as being representative of another element at all. At most, it describes "audio information ***associated with*** audio programs," but "associated with" is very different than "representative of." Ex. 9, '001 patent, 5:12-13 (emphasis added). Two things can be associated without either being representative of the other. Thus, even assuming "audio content" could be an "audio program," "audio work," or "audio track," or some combination of or all of those three, a POSITA would be left guessing as to ***which*** of those possibilities could be "represented by" "audio information." *See HZNP Medicines LLC v. Actavis Lab'ys UT, Inc.*, 940 F.3d 680, 690–91 (Fed. Cir. 2019) (holding ambiguous claim term indefinite where the term was not "define[d] or directly connect[ed]" to similar terms disclosed by the specification).

And even if, arguendo, a POSITA could ascertain the meaning of "audio information" and "audio content" with reasonable certainty, that POSITA would still be left guessing as to "the relationship between the two in the context of these claims"—*i.e.*, ***how*** "audio information is representative of the audio content" or "the particular audio content." *See Infinity Computer Prods., Inc. v. Oki Data Americas, Inc.*, 987 F.3d 1053, 1062 (Fed. Cir. 2021). For example, even if a POSITA were to assume that "audio content" is sufficiently defined by the specification's use of similar terms such as "audio program," the specification still provides no guidance as to how audio information could be ***representative of*** the audio program. Rather, it

conflates the two concepts, describing an "audio program" as something that is "defined by" audio information. *See, e.g.*, Ex. 9, '001 patent, 7:35-36 ("audio program ***defined by*** the audio information") (emphasis added). If anything, this adds to a POSITA's confusion—how could "audio information" both represent and define "audio content"? The phrase "defined by" suggests that the two terms are equivalent, and the phrase "representative of" suggests that the two are closely related but different. Without further context as to how both can be true, a POSITA would not be able to ascertain where "audio information" ends and where "audio content" begins. *See Infinity Computer Prods.*, 987 F.3d at 1062 (holding the claim terms "passive link" and "computer" indefinite where they failed to provide reasonable certainty as to the boundary between "where the passive link ends and where the computer begins").

A comparison between the claims of the '001 patent and those of the related (and asserted) '258 patent exemplifies the indefiniteness of the term "audio information that is representative of the [audio content / particular audio content]." In the '258 patent, the claims require playback timing information to be associated with "audio content," while in the '001 patent, playback timing information is associated with "audio information." *Compare* Ex. 10, '258 patent, 40:10-11 (claim 17) ("playback timing information ***associated with*** the ***audio content***") (emphasis added) *with* '001 patent, 40:40-41 (claim 12) ("playback timing information ***associated with*** the obtained ***audio information***") (emphasis added). The patentee thus appears to use the terms "audio content" and "audio information" synonymously, rendering any attempts to determine how one can be representative of the other an impossible exercise.

Without clear guidance as to (a) the differences, if any, between the terms "audio information" and "audio content," (b) the meaning of the term "audio content" in the context of the claims, and (c) how "audio information" could be "representative of the audio content," the claim term "audio information that is representative of the

audio content" (and its variation "audio information that is representative of the particular audio content") is indefinite for failing to provide reasonably certainty as to (1) the scope of the constituent parts of each phrase and (2) how they relate to each other. *See Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 789 F.3d 1335, 1341-42, 1334-45 (Fed. Cir. 2015) (holding that claims were indefinite where specification did not explicitly define a claim term with several possible meanings).

IV. GOOGLE'S '790 AND '608 PATENTS

A. "establishing [a/the] short-range signal transmission path" ('790 patent 1, 9, and 16; '608 patent 1, 11, 16)

Google	Sonos
"establishing a short-range signal transmission path before joining the [WLAN / communication network]"	Plain and ordinary meaning; includes a path that utilizes protocols based on 802.11 standards.

Google's construction accurately captures the temporal sequence of the steps required in the claims; that is, the step of "establishing a short-range signal transmission path" occurs before the target device "join[s] the WLAN/communication network." Using claim 1 of the '790 patent as an example, the claim language is clear on this multi-step commissioning process:

1. The target device receives a request from the wireless device to initiate the commissioning process;
2. The target device establishes a short-range signal transmission path with the wireless device using a first wireless radio;
3. The target device receives the WLAN configuration packets from the wireless device via the initial short-range signal transmission path;
4. The target device extracts the WLAN configuration packets using its commissioning logic; and
5. The target device uses the WLAN configuration packets to join the WLAN using a second wireless radio different from the first wireless radio.

Ex. 11, '790 patent, cl 1. Only after this short-range signal transmission path is in place can the target device obtain the necessary WLAN configuration packets to join the WLAN using the claimed method. As such, the "short-range signal transmission path" must be established before the target device "join[s] the WLAN / communication network." The parties do not dispute this fact. Google's construction provides clear guideposts for the jury to analyze the accused products. *See Avid Tech.*, 812 F. 3d at 1050 "aim of claim construction" is "to give the finder of fact an understandable interpretation of claim scope to apply to the accused systems").

In contrast, Sonos contends no construction is necessary but then attempts to rewrite the claim language to specify that the claimed "short-range signal transmission path" "includes a path that utilizes protocols based on 802.11 standards." Sonos has no justification for this re-writing of the claim language. Indeed, there is no disclosure in the specification of using "802.11 standards" to establish the claimed "short-range signal transmission path," much less evidence that every path "based on 802.11 standards" necessarily qualifies as a "short-range" path, as claimed. Indeed, this is an argument Sonos previously advanced during an ITC investigation involving a related patent, and which the ALJ squarely rejected. Ex. 12, 337-ITA-1330, EDIS Doc. ID. 805,826 (Initial Determination) at 174 ("[A] basic disclosure of 802.11 being used is insufficient to show 'short-range' is met."). Indeed, the '790 and '608 patents expressly distinguish the claimed use of a "short-range signal transmission path" from prior art use of "ad hoc networks," which would include 802.11 ad hoc networks that Sonos attempts to cover with its proposed construction. *See* Ex. 11, '790 patent, 4:10-16, 4:61-67. There is thus no basis to adopt Sonos's proposal that the claimed "short-range signal transmission path" encompasses any path that "utilizes protocols based on 802.11 standards."

During the parties' meet and confer, Sonos pointed to claim 3, which specifies that "the short-range signal transmission path is ***not*** a wireless local area network that utilizes protocols based on IEEE 802.11 standards." The inclusion of this dependent

claim does not broaden claim 1 beyond its plain meaning to encompass every path that is "based on 802.11 standards." *See Poly-America, L.P. v. API Indus., Inc.*, 839 F.3d 1131, 1137 (Fed. Cir. 2016) ("claim differentiation does not serve to broaden claims beyond their meaning in light of the patent as a whole"). Just as in the prior ITC investigation, Sonos attempt to interpret the claims of the '790 and '608 patents to encompass any and every path "based on IEEE 802.11 standards" should be rejected.

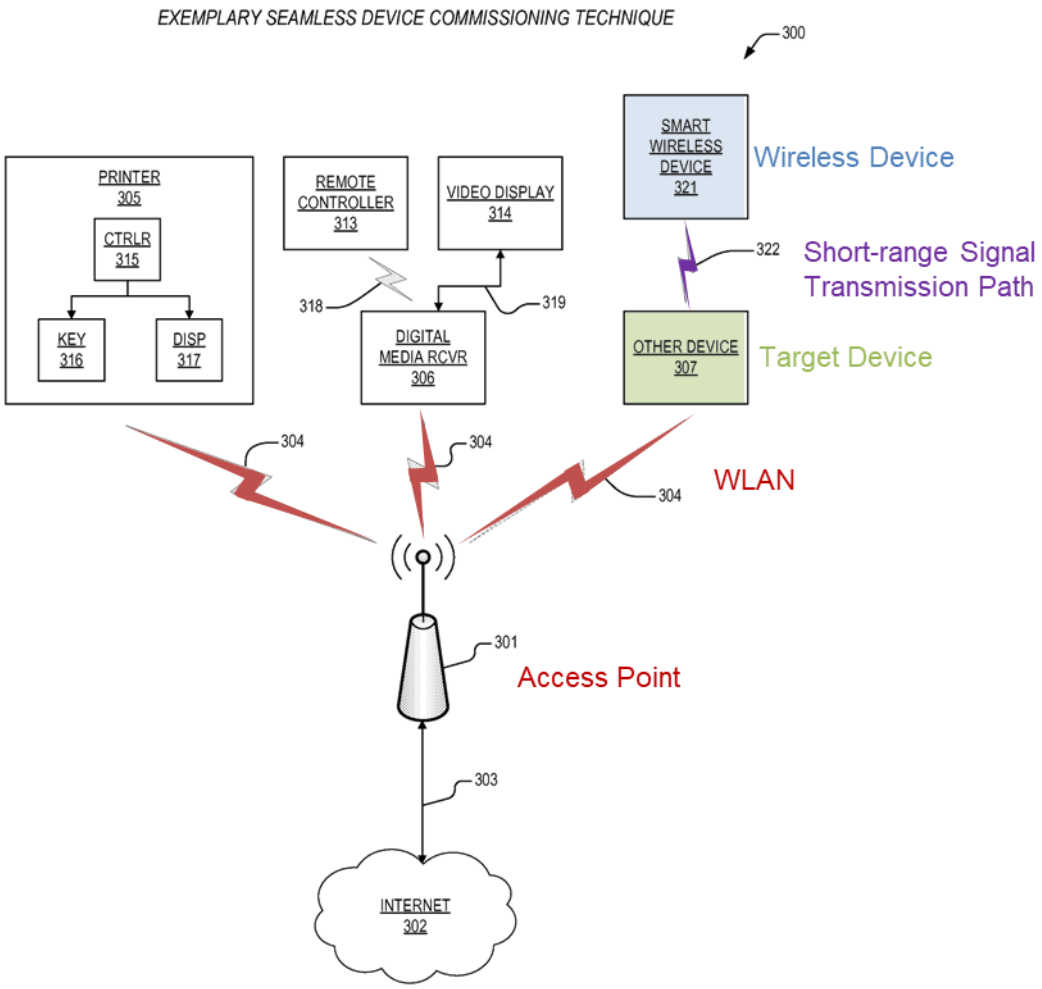
B. "independently of [a/the] [WLAN / communication network]" ('790 patent 1, 9, and 16; '608 patent 1, 11, 16)

Google's Proposed Construction	Sonos' Proposed Construction
"without traversing an access point defining the [WLAN / communication network]"	Plain and ordinary meaning; does not depend on the WLAN / communication network.

The term "independently" has different meanings depending on the type of WLAN or communication network at issue. The '790 and '608 patents distinguish "ad hoc networks" (Ex. 11, '790 patent, 4:10-16, 4:61-67), and the claims are directed to networks where a WLAN access point that "controls access to and communications over a WLAN." Ex. 11, '790 patent, 4:17-38, 5:8-25, 6:55-64; Figs. 1-3. Thus, in the context of the '790 and '608 patent claims, the intrinsic evidence is clear that a target device establishing a signal transmission path with a wireless device "independently" of the WLAN refers to establishing a signal transmission path directly between the wireless device and the targeting device, without traversing the access point defining the WLAN. *See* Ex. 11, '790 patent, Fig. 3:

FIG. 3

EXEMPLARY SEAMLESS DEVICE COMMISSIONING TECHNIQUE



In contrast, Sonos' construction merely restates "independently" as "does not depend on" and is unhelpful. For example, what does it mean for a signal transmission path to "not depend on" a network? If the path traverses an access point defining a network but does not use the same network identifier – which as shown in Figure 3 above is ***not*** what the patents envisioned – would that satisfy the claim language? Sonos's construction also ignores the intrinsic records' express teaching of an access point and provides no guidance on what "independently" means in the context of the specific type of network envisioned by the '790 and '608 patents. Therefore, Sonos' construction should be rejected.

C. "commissioning" / "commissioning process" ('790 patent 1, 9, and 16; '608 patent 1, 11, 16)

Google	Sonos
Plain and ordinary meaning	Lexicography, namely, "'commissioning' is construed to mean configuration of the other device 107 and the system 100 as a whole such that the other device 107 is enabled to function properly over the WLAN 104 including, if required, access to the Internet 102," which is indefinite.

Sonos' indefiniteness allegation lacks merit and is contradicted by Sonos's prior positions. The parties previously litigated U.S. Pat. No. 11,050,615, which claims priority to the '790 patent and has the same "commissioning / commissioning process" claim limitations as well as the same description in the specification that Sonos contends constitutes lexicography. Ex. 13, '615 patent, 5:2-7. Yet in both the ITC and IPR proceedings, Sonos never alleged that the term "commissioning / commissioning process" was subject to lexicography or indefinite. Ex. 14, ITC Inv. No. 337-TA-1330, EDIS Doc. ID. 790,450 (Order No. 14: Construing Terms of the Asserted Claims), at 50-54 (seeking constructions of other claim terms but not alleging that "commissioning / commissioning process" is indefinite); Ex. 15, IPR2023-00806, Paper No. 1 at 14 ("[Sonos] submits that the terms of the '615 patent's claims do not require further construction and can be afforded their plain and ordinary meaning."). Indeed, Sonos and its experts had no problem mapping those limitations to the prior art and arguing that the prior art discloses the claimed "commissioning / commissioning process." Ex. 12, ITC Inv. No. 337-TA-1330, EDIS Doc. ID. 805,826 (Initial Determination) at 122-24; Ex. 15, IPR2023-00806, Paper. No. 1 (petition) at 20; Ex. 16, IPR2023-00806, Ex. 1003 (Schmidt Decl.) at 42-44, 47-51, 76-78, 82-83, 90-92.

After asserting the plain meaning applies, without any caveats or further explanation, Sonos should not now be allowed to back-track on its prior representations to the USPTO and argue the same term is indefinite. *Sonix Tech. Co. v. Publications Int'l, Ltd.*, 844 F.3d 1370, 1380 (Fed. Cir. 2017) (ruling that

application of the term at issue by a challenger's own expert to various references and products without any uncertainty "supports the conclusion that a skilled artisan did understand the term with reasonable certainty."); *see also Liqwd, Inc. v. L'Oreal USA, Inc.*, 720 F. App'x 623, 631 (Fed. Cir. 2018) ("Evidence of a challenger's own ability to apply a term without unreasonable uncertainty counts against an indefiniteness contention."); *Taction Tech., Inc. v. Apple Inc., No. 3:21-cv-812-TWR-JLB, ECF No. 141 at 20-22 (S.D. Cal. Sept. 28, 2022)* (relying on accused infringer and its expert's ability to apply claim term without issue during their invalidity analysis in IPR proceedings in rejecting indefiniteness challenge).

In fact, the ITC administrative law judge and the Patent Trial and Appeal Board both sided with Sonos and invalidated claims 1-3, 5, 9-12, and 15-18 of the '615 patent[6] based on Sonos's argument that the claimed "commissioning / commissioning process" has a plain meaning and that the prior art discloses those claim elements under that plain meaning. Ex. 12, ITC Inv. No. 337-TA-1330, EDIS Doc. ID. 805,826 (Initial Determination), at 188-89; Ex. 17, IPR2023-00806, Dkt. No. 20 (Final Written Decision), 37. Having prevailed in multiple venues based on the plain meaning of "commissioning / commissioning process," Sonos is now estopped from arguing for the first time in this litigation that the same "commissioning / commissioning process" is indefinite. *Hamilton v. State Farm Fire & Cas. Co.*, 270 F.3d 778, 783 (9th Cir. 2001) (applying judicial estoppel to cases where the court relied on, or "accepted," the party's previous inconsistent position).

Even if Sonos is permitted to advance an indefiniteness argument now for the first time, Sonos's argument lacks merit. The term "commissioning" is found and described throughout the '790 and '608 patent specification, including the title of the

[6] The '790 and '608 patent claims include multiple other limitations that further distinguish those claims from the prior art Sonos cited in the ITC investigation and IPR involving the '615 patent.

patents: "Apparatus and Method for Seamless Commissioning of Wireless Devices." The specification explains that "what is needed is a technique for commissioning a wireless device onto a wireless network that the average consumer can employ without undue distress." Ex. 11, '790 patent, 2:17-19. The patent claims are then directed to methods and systems "for commissioning a target device onto a communication network" that achieve the goals set forth in the specification. To the extent there is any lingering doubt about the scope of the claimed "commissioning," the '790 and '608 patent further describe that specific term with such specificity that Sonos contends it rises to the level of "lexicography:"

> [W]ireless electronic devices do not merely connect themselves to the nearest wireless network. Rather, they must be "commissioned" onto a desired network. That is, the particular devices must be provided with configuration data to enable them to join the desired wireless network so that they can function according to specification by utilizing the communication properties of the network.

Ex. 11, '790 patent, 1:62-2:2.

> For purposes of the present disclosure, "commissioning" is construed to mean configuration of the other device 107 and the system 100 as a whole such that the other device 107 is enabled to function properly over the WLAN 104 including, if required, access to the Internet 102.

Ex. 11, '790 patent, 5:2-7.

Finally, the '790 and '608 patent's description of "commissioning" is consistent with how the term is used and well understood in the industry. For example, IEEE defines the term "commissioning" as "the process of providing to the appropriate components, the information necessary for the designed communication between components." Ex. 18. This definition is consistent with the '790 and '608 patent specification and claims, which are directed to "commissioning" a target device to function properly on the claimed WLAN.

In sum, Sonos's indefiniteness argument should be rejected because Sonos's prior litigation positions, the term's plain meaning, and the description in the specification all support the same, consistent plain meaning to the claimed

"commissioning."

D. "executing an application on the target device to decode and process by the commissioning logic the one or more WLAN configuration packets and recover the WLAN configuration data" ('790 patent claims 1 and 16)

Google	Sonos
Plain and ordinary meaning	Indefinite

Sonos does not challenge any individual aspect of the disputed term, including "application" and "commissioning logic." Rather, Sonos feigns confusion over what it means for an "application" to "process by the commissioning logic" the WLAN configuration packets. But there is no reasonable confusion here. The specification explains that "commissioning logic" may include "program instructions that direct the microcontroller 501 to decode and process the WLAN configuration packets." Ex. 11, '790 patent, 10:6-9. That "commissioning logic" is part of or called by the claimed "application." Indeed, the '790 patent makes this relationship explicit by claiming "an application that includes a sequence of program instructions directed towards commissioning the target device onto the WLAN," i.e., "commissioning logic." Ex. 11, '790 patent, cl. 11. Thus, when '790 patent claims 1 and 16 recite "executing an application on the target device to decode and process by the commissioning logic the one or more WLAN configuration packets and recover the WLAN configuration data," they mean that, as part of "executing an application," the "commissioning logic" causes a microprocessor "to decode and process … the one or more WLAN configuration packets and recover the WLAN configuration data."

Sonos's indefiniteness allegation is betrayed by its IPR positions against the '615 patent claims, which also require both "commissioning logic" and "an application." Ex. 13, '615 patent, cls. 1, 11, 16. In that IPR, Sonos mapped the "commissioning logic" to Robert's "'instructions' or 'programs' that may be executed by the processing unit" for "the provision of configuration information" (Ground 1, citing Roberts at 3:15-16, 3:54-58) and to Suumaki's "'sequences of instructions,

which … carr[ies] out' Suumaki's connection setup method (Ground 1, citing Suumaki at 23:39-47, 24:43-49). Ex. 15, IPR2023-00806, Paper No. 1 at 23, 49. Sonos then cited those same "programs" and "instructions," as well as the same disclosure from Robert and Suumaki, for the claimed "application." Ex. 15, IPR2023-00806, Paper No. 1 at 23, 49. Thus, consistent with the above explanation, Sonos understood in its IPR that "commissioning logic" and "application" are related concepts and that the "commissioning logic" may be part of the "application." Importantly, at no point in the '615 patent IPR did Sonos identify any confusion or ambiguity about the scope of the claim terms "commissioning logic" and "application" found in both the '615 patent claims as well as the '790 patent claims. Sonos's belatedly manufactured indefiniteness arguments should be rejected.

Further, as discussed above, Sonos is estopped from arguing "executing an application on the target device to decode and process" is indefinite. *Hamilton*, 270 F.3d 778, 783.

E. "the transducer" ('790 patent claim 9)

Google	Sonos
Plain and ordinary meaning	Indefinite

The term "transducer" appears in independent claims 9 and 16 of the '790 patent. Claim 16 of the '790 patent recites "a target device with a transducer." Sonos does not challenge claim 16 as indefinite. Claim 9 similarly recites a target device with "commissioning logic that is coupled to the transducer." But here, Sonos contends claim 9 is indefinite solely because the term "the transducer" is not preceded by a separate reference to "a transducer." This alleged antecedent basis issue does not, however, create any ambiguity in claim scope. The "the transducer" of claim 9 is the ***only*** reference to any "transducer" in that claim. For example, there is no ambiguity whether "the transducer" refers to the same or a different previously mentioned "transducer"—claim 9 under every interpretation requires just a single "transducer" that is coupled to the "commissioning logic." And because there is no ambiguity in

claim scope, any antecedent basis issue applicable to "the transducer" does not warrant invalidating claim 9 as indefinite. *See Energizer Holdings, Inc. v. International Trade Commission*, 435 F.3d 1366, 1370 (Fed. Cir. 2006) ("When the meaning of the claim would reasonably be understood by persons of ordinary skill when read in light of the specification, the claim is not subject to invalidity upon departure from the protocol of 'antecedent basis.'"); *see also Harmonic Design, Inc. v. Hunter Douglas, Inc.*, 88 F. Supp. 2d 1102, 1107-08 (C.D. Cal. 2000) (finding term "the sensor" not indefinite even though claim did not refer to any prior "sensor").

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I, Ognjen Zivojnovic, certify that pursuant to Local Rule 5-3, counsel of record who have consented to electronic service are being served on November 12, 2025 with copies of the attached document(s) via the Court's CM/ECF system, which will send notification of such filing to counsel of record.

DATED: November 12, 2025

Respectfully submitted,

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