

No. 24-1097

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IN THE  
**United States Court of Appeals for the Federal Circuit**

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GOOGLE LLC,

*Plaintiff-Appellee,*

*v.*

SONOS, INC.,

*Defendant-Appellant.*

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On Appeal from the United States District Court for the  
Northern District of California  
Nos. 3:22-cv-06754-WHA and 3:21-cv-07559-WHA, Hon. William Alsup

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**OPENING BRIEF OF APPELLANT SONOS, INC.**

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## CLAIM LANGUAGE AT ISSUE

### U.S. Patent No. 10,848,885: Claim 1

1. A first zone player comprising:

a network interface that is configured to communicatively couple the first zone player to at least one data network;

one or more processors;

a non-transitory computer-readable medium; and

program instructions stored on the non-transitory computer-readable medium that, when executed by the one or more processors, cause the first zone player to perform functions comprising:

while operating in a standalone mode in which the first zone player is configured to play back media individually in a networked media playback system comprising the first zone player and at least two other zone players:

(i) receiving, from a network device over a data network, a first indication that the first zone player has been added to a first zone scene comprising a first predefined grouping of zone players including at least the first zone player and a second zone player that are to be configured for synchronous playback of media when the first zone scene is invoked; and

(ii) receiving, from the network device over the data network, a second indication that the first zone player has been added to a second zone scene comprising a second predefined grouping of zone players including at least the first zone player and a third zone player that are to be configured for synchronous playback of media when the second zone scene is invoked, wherein the second zone player is different than the third zone player;

after receiving the first and second indications, continuing to operate in the standalone mode until a given one of the first and second zone scenes has been selected for invocation;

after the given one of the first and second zone scenes has been selected for invocation, receiving, from the network device over the data network, an instruction to operate in accordance with a given one of the first and second zone scenes respectively comprising a given one of the first and second predefined groupings of zone players; and

based on the instruction, transitioning from operating in the standalone mode to operating in accordance with the given one of the first and second predefined groupings of zone players such that the first zone player is configured to coordinate with at least one other zone player in the given one of the first and second predefined groupings of zone players over a data network in order to output media in synchrony with output of media by the at least one other zone player in the given one of the first and second predefined groupings of zone players.

### **U.S. Patent No. 10,469,966: Claim 1**

#### **1. A computing device comprising:**

one or more processors;

a non-transitory computer-readable medium;

and program instructions stored on the non-transitory computer-readable medium that, when executed by the one or more processors, cause the computing device to perform functions comprising:

while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:

receiving a first request to create a first zone scene comprising a first predefined grouping of zone players including at least the first zone player and a second zone player that are to be configured for synchronous playback of media when the first zone scene is invoked;

based on the first request, i) causing creation of the first zone scene, ii) causing an indication of the first zone scene to be transmitted to the first zone player, and iii) causing storage of the first zone scene;

receiving a second request to create a second zone scene comprising a second predefined grouping of zone players including at least the first zone player and a third zone player that are to be configured for synchronous playback of media when the second zone scene is invoked, wherein the third zone player is different than the second zone player;

based on the second request, i) causing creation of the second zone scene, ii) causing an indication of the second zone scene to be transmitted to the first zone player, and iii) causing storage of the second zone scene; displaying a representation of the first zone scene and a representation of the second zone scene; and while displaying the representation of the first zone scene and the representation of the second zone scene, receiving a third request to invoke the first zone scene; and

based on the third request, causing the first zone player to transition from operating in the standalone mode to operating in accordance with the first predefined grouping of zone players such that the first zone player is configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player.

## U.S. Patent No. 10,779,033: Claim 1

1. A computing device comprising:

at least one processor;

a non-transitory computer-readable medium; and

program instructions stored on the non-transitory computer-readable medium that, when executed by the at least one processor, cause the computing device to perform functions comprising:

operating in a first mode in which the computing device is configured for playback of a remote playback queue provided by a cloud-based computing system associated with a cloud-based media service;

while operating in the first mode, displaying a representation of one or more playback devices in a media playback system that are each i) communicatively coupled to the computing device over a data network and ii) available to accept playback responsibility for the remote playback queue;

while displaying the representation of the one or more playback devices, receiving user input indicating a selection of at least one given playback device from the one or more playback devices;

based on receiving the user input, transmitting an instruction for the at least one given playback device to take over responsibility for playback of the remote playback queue from the computing device, wherein the instruction configures the at least one given playback device to (i) communicate with the cloud-based computing system in order to obtain data identifying a next one or more media items that are in the remote playback queue, (ii) use the obtained data to retrieve at least one media item in the

remote playback queue from the cloud-based media service;  
and (iii) play back the retrieved at least one media item;

detecting an indication that playback responsibility for the remote playback queue has been successfully transferred from the computing device to the at least one given playback device; and

after detecting the indication, transitioning from i) the first mode in which the computing device is configured for playback of the remote playback queue to ii) a second mode in which the computing device is configured to control the at least one given playback device's playback of the remote playback queue and the computing device is no longer configured for playback of the remote playback queue.

### **U.S. Patent No. 9,967,615: Claim 13**

**13.** A tangible, non-transitory computer readable storage medium including instructions for execution by a processor, the instructions, when executed, cause a control device to implement a method comprising:

causing a graphical interface to display a control interface including one or more transport controls to control playback by the control device;

after connecting to a local area network via a network interface, identifying playback devices connected to the local area network;

causing the graphical interface to display a selectable option for transferring playback from the control device;

detecting a set of inputs to transfer playback from the control device to a particular playback device, wherein the set of inputs comprises: (i) a selection of the selectable option for transferring playback from the control device and (ii) a selection of the particular playback device from the identified playback devices connected to the local area network:

after detecting the set of inputs to transfer playback from the control device to the particular playback device, causing playback to be transferred from the control device to the particular playback device, wherein transferring playback from the control device to the particular playback device comprises:

(a) causing one or more first cloud servers to add multimedia content to a local playback queue on the particular playback device, wherein adding the multimedia content to the local playback queue comprises the one or more first cloud servers adding, to the local playback queue, one or more resource locators corresponding to respective locations of the multimedia content at one or more second cloud servers of a streaming content service;

(b) causing playback at the control device to be stopped; and

(c) modifying the one or more transport controls of the control interface to control playback by the playback device; and

causing the particular playback device to play back the multimedia content, wherein the particular playback device playing back the multimedia content comprises the particular playback device retrieving the multimedia content from one or more second cloud servers of a streaming content service and playing back the retrieved multimedia content.

**UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT**

**CERTIFICATE OF INTEREST**

**Case Number** 24-1097

**Short Case Caption** Google LLC v. Sonos, Inc.

**Filing Party/Entity** Sonos, Inc.

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2. Please enter only one item per box; attach additional pages as needed, and check the box to indicate such pages are attached.
3. In answering Sections 2 and 3, be specific as to which represented entities the answers apply; lack of specificity may result in non-compliance.
4. Please do not duplicate entries within Section 5.
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I certify the following information and any attached sheets are accurate and complete to the best of my knowledge.

Date: 02/12/2024

Signature: /s/ E. Joshua Rosenkranz

Name: E. Joshua Rosenkranz

<p><b>1. Represented Entities.</b> Fed. Cir. R. 47.4(a)(1).</p>	<p><b>2. Real Party in Interest.</b> Fed. Cir. R. 47.4(a)(2).</p>	<p><b>3. Parent Corporations and Stockholders.</b> Fed. Cir. R. 47.4(a)(3).</p>
<p>Provide the full names of all entities represented by undersigned counsel in this case.</p>	<p>Provide the full names of all real parties in interest for the entities. Do not list the real parties if they are the same as the entities.</p> <p><input checked="" type="checkbox"/> None/Not Applicable</p>	<p>Provide the full names of all parent corporations for the entities and all publicly held companies that own 10% or more stock in the entities.</p> <p><input type="checkbox"/> None/Not Applicable</p>
<p>Sonos, Inc.</p>		<p>BlackRock Inc.</p>

Additional pages attached

**4. Legal Representatives.** List all law firms, partners, and associates that (a) appeared for the entities in the originating court or agency or (b) are expected to appear in this court for the entities. Do not include those who have already entered an appearance in this court. Fed. Cir. R. 47.4(a)(4).

None/Not Applicable                       Additional pages attached

See attached		

**5. Related Cases.** Other than the originating case(s) for this case, are there related or prior cases that meet the criteria under Fed. Cir. R. 47.5(a)?

Yes (file separate notice; see below)     No     N/A (amicus/movant)

If yes, concurrently file a separate Notice of Related Case Information that complies with Fed. Cir. R. 47.5(b). **Please do not duplicate information.** This separate Notice must only be filed with the first Certificate of Interest or, subsequently, if information changes during the pendency of the appeal. Fed. Cir. R. 47.5(b).

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None/Not Applicable                       Additional pages attached


## Attachment

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## STATEMENT OF RELATED CASES

This appeal may affect or be affected by Sonos's pending appeal from the Patent Trial and Appeal Board's decision holding claims 1-2, 6-14, 18-25, and 27-29 of the '615 patent unpatentable. *See Sonos, Inc. v. Google LLC*, No. 23-2040.

Google filed a mandamus petition seeking to have Sonos's case transferred from the Western District of Texas to the Northern District of California; this Court granted the petition. *In re Google LLC*, No. 21-170 (Judges Lourie, Bryson, and Taranto, per curiam). Sonos sought interlocutory review of a decision dismissing Sonos's claims for willful and indirect infringement; this Court denied the petition. *Sonos, Inc. v. Google LLC*, Nos. 22-134, 22-144 (Judges Dyk, Reyna, and Chen, per curiam).

## INTRODUCTION

The district court has strong views about “the way the patent system should work.” Appx21412. But those views conflict with the Patent Act, the Federal Rules of Civil Procedure, and this Court’s precedent. Undeterred, the district court rewrote patent law and reconstituted the judicial role to erase a \$32.5 million jury verdict and throw out other patent claims that should have been tried.

To override the jury verdict, the district court recast the doctrine of prosecution laches in an unprecedented way to declare two of Sonos’s patents unenforceable. The court recognized that Sonos prosecuted the patent family diligently through several continuation applications off a 2006 provisional application. The court also acknowledged that Sonos did nothing that extended its patents’ terms. Yet the court held that Sonos took too long to prosecute the specific claims it asserted against Google here.

The court was most troubled that Sonos added the asserted claims in a continuation application after Google brought its infringing products to market. But Sonos disclosed the invention years before Google even began investing in those products, and informed Google

about that patent family. In fact, Sonos had already secured patents in the same family with broader claims covering Google’s products. At any rate, “amend[ing] [to] insert claims intended to cover a competitor’s product” is not “in any manner improper”—and, in fact, is entirely compatible with Congress’s design. *Kingsdown Med. Consultants, Ltd. v. Hollister Inc.*, 863 F.2d 867, 874 (Fed. Cir. 1988). If this Court condones this novel application of prosecution laches, it will endanger many thousands of patents secured through standard continuation practice and discourage the early and complete disclosure of new innovations.

The district court also found the asserted claims invalid on the ground that Sonos did not supply adequate written description as of the claimed priority date. The court had previously rejected Google’s summary judgment motion on written description, and Google did not try that defense or a priority-date challenge to the jury. Yet the court took the reins of Google’s defense and crafted a narrative of Sonos’s subterfuge to justify its invalidity ruling.

The court hinted at this story for the first time in the middle of trial, but waited until after trial to recount it fully, depriving Sonos of

any opportunity to present testimony refuting it. The court found that written description for the asserted claims depended on a single sentence that Sonos added to the specification by amendment in 2019. It ignored that the specification contained additional support for the claims and the sentence in question had been incorporated by reference into every earlier application in the priority chain. Nevertheless, the court concluded that Sonos had tricked the Patent Office into allowing the amendment. That finding was inconsistent with the record evidence and depended on multiple disputed facts that would have been for jurors to decide—if anyone had ever presented the issues to them.

These intrusions into the jury’s domain were not isolated to the two patents that went to trial. On two other patents, the district court granted Google summary judgment of invalidity. But it did so only by resolving factual disputes about the prior art.

This is not how Congress said the patent system should work, nor how the Federal Rules say the judicial system should work. This Court should reverse the post-trial laches and invalidity rulings on the ’885 and ’966 patents. And it should vacate the summary judgment rulings on the ’615 and ’033 patents to allow Sonos to try its case to a jury.

## **STATEMENT OF JURISDICTION**

The district court had jurisdiction under 28 U.S.C. §§ 1338 and 1367. It entered final judgment on October 10, 2023, and amended the judgment on November 14, 2023. Appx106; Appx107-108. Sonos filed a notice of appeal on October 17, 2023, and an amended notice on November 15, 2023. Appx11489-11490; Appx11491-11492. This Court has jurisdiction under 28 U.S.C. § 1295.

## **STATEMENT OF THE ISSUES**

1. Whether the district court erred in applying prosecution laches to declare the '885 and '966 patents unenforceable, based on nothing but standard continuation practice that did not extend the patents' terms.

2. Whether the district court erred in granting judgment as a matter of law on the written description and priority date of the '885 and '966 patents, where the limited evidence that the court considered established a priority date no later than 2007, Google forfeited the issues, and Sonos had no opportunity to present relevant evidence on these factual questions.

3. Whether the district court erred by granting summary judgment of invalidity for the '615 and '033 patents where Sonos raised

genuine disputes of material fact about whether the prior art rendered the patents obvious.

## STATEMENT OF THE CASE

### *Sonos Brings Home-Audio Systems Into The Internet Era*

Flash back to the turn of the century. Home-audio technology looked “almost nothing like what you see today.” Appx20253. Most homes had just “CD players or radios” that played in individual rooms. Appx20253. The rare multiroom systems were rigid and “low-tech.” Appx20253-20254. Installers had to “pull wires through the walls or ceiling, repair drywall, and patch things,” Appx20253-20254, and redo all the wiring to change the configuration. Wires connected each speaker to a central receiver that controlled the system. Appx20255-20256.

Sonos changed all of this. Appx20252-20253. Its founders envisioned “a new kind of home-audio system” built for “internet-based music services.” Appx20253. Sonos disrupted the status quo in several fundamental ways.

First, Sonos invented “intelligent network devices” called ZonePlayers that superseded the central receiver. These players would

go in each room of a house and “provide the music functionality for that particular room.” Appx20257. Unlike traditional speakers, ZonePlayers had processors, ran software, and connected to the internet and other devices on the network. Appx20263-20264. Relatedly, Sonos eliminated wires by using “network technology” and “internet-based music sources.” Appx20257. And Sonos ditched basic remote controls for a “smart controller that offered two-way communication” with the system. Appx20257.

When Sonos started this endeavor in the early 2000s, the necessary technology “was in its infancy.” Appx20258. Smartphones did not exist yet, there were no legitimate online music services, and “few people had [even] thought of connecting ... devices other than computers to the internet.” Appx20258; Appx20265; Appx20284. Sonos overcame those challenges through years of painstaking engineering and released its first commercial products—the ZP100 (an audio player that connected to external speakers) and CR100 (a hardware controller)—in 2005. Appx20274-20275.

Sonos’s controller allowed users to group ZP100s in different rooms of their house, such as the family room and the kitchen, to play

music in sync. Appx20268-20269; Appx20274-20275; Appx10763. And users could also dynamically change which rooms were part of a group whenever they wanted.

Industry experts lauded Sonos's system, calling it "easily the best music streaming product I have seen," and marveling that it could "play the same music throughout the house perfectly synchronized."

Appx20281-20284 (quoting Appx34462-34463; Appx34464). Sonos

continued to innovate at a rapid pace, launching a range of top-quality speakers designed for wireless home audio and transforming its

controller from hardware into a smartphone app. Appx20286-20287.

Sonos released its first controller app for the iPhone in 2008 and its first

fully wireless smart speaker in 2009. Appx20286-20287; Appx1315;

*contra* Appx54 (erroneously stating that Sonos did not release its first "internet-connected smart speaker" until 2014).

### ***Sonos Patents Its Revolutionary Technology***

This appeal involves four Sonos patents: a pair of "zone scene" patents (U.S. Patent Nos. 10,848,885 and 10,469,966) and a pair of "direct control" patents (U.S. Patent Nos. 10,779,033 and 9,967,615).

**'885 and '966 patents:** The zone-scene patents share a specification and claim priority to a September 2006 provisional application. Appx2052; Appx347. The patents relate to creating and invoking “zone scenes”: predefined, saved groups of players, such as smart speakers, that can play synchronous audio. *E.g.*, Appx20287; Appx2089 2:36-45. The '885 patent covers zone scenes from the speaker’s perspective, while the '966 patent covers them from the perspective of the controller (e.g., a smartphone). *E.g.*, Appx2094 11:36-40; Appx383 11:35-47.<sup>1</sup>

The patents explain the problem that the zone-scene invention was designed to address. Before this invention, speaker groups were “dynamic.” Appx20287-20288. That meant a user would create an ad hoc group of speakers and invoke it immediately for synchronous playback, but the group was destroyed the moment the user chose to put one of the grouped speakers into a different group, or to play something individually on one of the previously grouped speakers. Appx20287-20288.

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<sup>1</sup> While smart speakers are not the only type of “players” covered by Sonos’s patents, for simplicity, this brief uses “speakers” to describe the broader category.

To address that problem, Sonos invented zone scenes. Zone scenes are predefined, saved groups of speakers that a user can invoke for synchronous playback whenever they want. Appx20288. For example, a user can create and save a “Morning” zone scene of speakers in her bedroom, kitchen, and bathroom, Appx20288, and also a partially overlapping “Downstairs” zone scene of all speakers on the first floor, including the kitchen, dining room, and family room, Appx20292-20293. The user can start the day with the Morning zone scene and then later seamlessly switch to Downstairs. But the switch does not destroy the Morning zone scene; the following morning, the user can revert to the Morning zone scene. The same speaker (here, the kitchen) can belong to multiple, coexisting zone scenes and thus “overlap.” Appx20289-20293. And the user can play music individually on any speaker without destroying either the Morning or Downstairs zone scenes. Appx20291-20293.

Zone scenes thus improve the user experience by making it possible to “instantly” and repeatedly invoke a previously saved group instead of “redoing that work again and again of selecting the particular players” for a dynamic group. Appx20291.

Sonos conceived of zone scenes by 2005. Appx10954. But for a variety of technical and market reasons, it did not incorporate them into its first generation of products. *See* Appx20915. Sonos instead spent its limited resources adapting to a litany of seismic developments in the industry, including “the rise of the smartphone” and the invention of “every single music service that you use today.” Appx20289-20291. Sonos overhauled its system hardware and software in 2020 to practice the zone-scene patents. Appx20287.

**'033 and '615 patents:** The direct-control patents share a different specification. They relate to using a “control device” such as a smartphone to transfer playback responsibility to a “playback device,” such as a smart speaker, through an app like Spotify. *E.g.*, Appx282 2:10-19. Sonos calls this technology “direct control” because it allows a user to directly control a Sonos speaker or a group of speakers—by selecting a song, changing the volume, and so forth—through a third-party app.

The direct-control and zone-scene technologies complement each other. For example, with direct control, a user can select a saved group through her third-party music app and play music to all of her

“Downstairs” speakers in sync, without needing to open the separate Sonos app. Appx20293-20294. Third-party streaming apps typically lack the capability to select multiple speakers at a time for playback, so Sonos’s inventions provide a crucial bridge for users to have a seamless streaming experience. Appx20293-20294.

### ***Google Launches A Music-Streaming Service And Then Releases A “Sonos Clone” Speaker***

From its inception, Sonos “kept in touch” with companies that were developing online music services “with an eye towards making the[ir] content ... available for playback on Sonos.” Appx20299. So, when Google launched its streaming service, Google Play Music, in 2013, Sonos welcomed the opportunity to collaborate toward integrating Google Play Music with Sonos. Appx20299-20302; Appx1605. At the time, Google and Sonos did not compete: Google offered no speaker hardware, and Sonos did not offer its own streaming content. Appx20307.

From 2013 to 2015, Sonos and Google discussed a potential collaboration to make Google’s music service compatible with Sonos’s speakers. In the summer of 2013, Sonos gave Google a “detailed explanation” of how its products functioned. Appx20302-20304. Sonos

also shared physical Sonos devices and the “Sonos music API” that enabled third-party services to work with Sonos. Appx20304-20305; *see* Appx1613-1615 (emails between Sonos and Google). The parties met again in 2014 to explore integrating Sonos with Google’s “Cast for Audio” technology, which lets users send and control content such as songs and videos from smaller computing devices (phones and tablets) to larger devices like speakers or TVs. Appx9651 (played at Appx20650); Appx34432-34456 (Cast for Audio presentation).

What Google did not share was that it was plotting to release hardware that competed directly with Sonos. Google released its first competing products in December 2015—six years after Sonos released its first smart speaker—and has continued launching more ever since. Appx20307-20311. The press called Google’s speakers “Sonos [c]lone[s].” Appx1370. Google also released apps for controlling the hardware—including creating and saving speaker groups. Appx4551-4552.

Sonos repeatedly warned Google that it infringed Sonos’s patents, including patents in the zone-scene and direct-control families. *See* Appx7579. Sonos spent years trying to persuade Google to take a

license. Appx7489-7491. But Google’s infringement continued unabated, and with the press reporting that Google’s new products brought Google “one step closer to replacing your Sonos system,” Sonos had no choice but to sue. Appx15454-15460.

***Sonos Sues Google, And The District Court Conducts A “Patent Showdown”***

Sonos sued Google in the Western District of Texas in 2020. But Google beat Sonos to the courthouse, filing a declaratory-judgment action one day earlier in the Northern District of California. Appx247-259. After this Court found venue in California more convenient, Sonos’s case ended up before the Northern District judge responsible for Google’s declaratory-judgment action. Appx15430-15431.

In 2021, the district court ordered the parties to participate in its unique “patent showdown procedure,” which the court described as “the way to get this whole thing settled.” Appx492-494. The showdown requires the “patent owner and alleged infringer [to] each select and exchange one asserted claim” and then “file cross motions for summary judgment on the two claims.” Appx485-487. If any claim survived summary judgment, the parties had to “prepare[] for a prompt

[showdown] trial,” Appx487, while the rest of the case proceeded at a standard pace, Appx502-503.

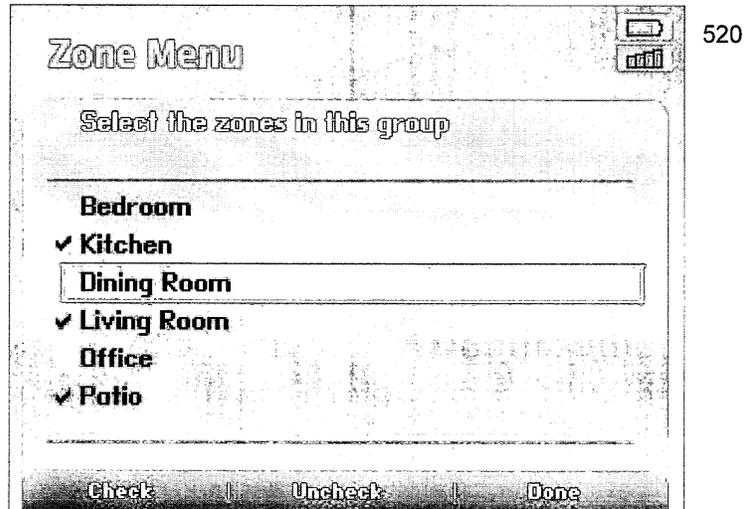
Sonos chose claim 1 of the ’885 patent. Appx4549. Broadly speaking, claim 1 covers Sonos’s zone-scene technology from the perspective of a player (e.g., a smart speaker). Appx4551. Sonos accused Google’s media players—speakers, Chromecast dongles, and Nest Hub displays—of infringement. Appx4549.

The parties cross-moved for summary judgment on claim 1. As relevant here, Google moved for summary judgment of noninfringement and contended that claim 1 was invalid as lacking written-description support for zone scenes where one speaker belongs to multiple saved groups. Appx4896-4897.

The district court held that Google infringed claim 1. Appx5410-5411. (Several months after the showdown, Google released a redesign that it claimed was noninfringing. Appx49.)

The court rejected Google’s written-description argument, holding that the specification’s “disclosures adequately convey that a zone player can be added to multiple zone scenes.” Appx5417. The court pointed to Figure 5B in the ’885 patent’s specification, which shows a

“user interface to allow a user to form a scene.” Appx5416-5417 (quoting Appx2093 10:12-19).



**FIG. 5B**

Appx2086. The specification explains that the list of zones (or speakers) above “includes ALL the zones in the system, including the zones that are already grouped.” Appx5416-5417 (quoting Appx2093 10:12-19). The court also noted that the specification discloses that “*various scenes* may be saved in any of the members in a group.” Appx5417 (quoting Appx2089 2:56-59).

Google chose claim 13 of the ’615 patent, which covers direct-control technology. The claim recites a computer-readable storage medium with instructions that enable a “control device” (such as a

smartphone) to transfer media playback to a “playback device” (such as a smart speaker). Appx5067-5068.

Here, the crucial limitation for transferring playback is “causing one or more first cloud servers to add multimedia content to a local playback queue on the particular playback device.” Appx291 20:7-15. The district court construed “playback queue” to mean “[a] list of multimedia content selected for playback.” Appx5; Appx7-8.

Google moved for summary judgment of noninfringement and invalidity, Appx4857-4888, which the district court granted, Appx1-17. The court credited Google’s expert testimony that it would have been obvious to combine Google’s YouTube Remote, which used a local playback queue, with teachings from Google’s U.S. Patent No. 9,490,998 to allow selecting a particular “paired” device from among multiple devices available for playback. Appx4878-4881. The court elevated that testimony above Sonos’s expert testimony explaining that the ’998 patent is at best ambiguous as to whether it teaches selecting a particular paired device from among multiple devices, or merely selecting any and all paired devices. Appx5150.

### ***The District Court Invalidates The '033 Patent Before Trial***

As the case moved toward trial on the remaining patents, both sides again moved for summary judgment. As relevant here, Google sought summary judgment of invalidity for the '033 patent. Appx19. The obviousness analysis again revolved around YouTube Remote and the '998 patent, although this time Google relied on what it called the “party mode” feature of YouTube Remote. Appx25. And while the '615 patent claims a *local* playback queue, the '033 patent claims a *remote* playback queue. Appx25.

The district court disregarded Sonos’s expert’s opinion that a copy of the party playlist stored on a cloud server did not qualify as a remote playback queue, as required by the '033 patent’s claims. Appx30; see Appx6330-6331. Thus, here, again, the district court found that the combination of YouTube Remote and the '998 patent rendered Sonos’s claims obvious. Appx37.

### ***The Jury Finds Infringement But The District Court Overrides The Jury’s Verdict***

The following issues remained for trial: (1) whether Google’s post-showdown redesign infringes claim 1 of the '885 patent; (2) whether any version of the accused products infringes the '966 patent; (3) whether

Google willfully infringes the '966 patent; (4) whether any asserted claims were obvious; and (5) damages. Appx10347-10350.

The jury found that Google failed to prove any of the asserted claims invalid. Appx10347-10348. It also found that Google's redesign still infringes claim 1 of the '885 patent but that no accused products infringe the '966 patent. Appx10347-10349. The jury awarded Sonos just over \$32.5 million for past infringement. Appx10350.

The parties filed post-trial motions, with each party challenging aspects of the verdict and Sonos seeking additional remedies.

Appx11069-11098; Appx11099-11135. The district court never decided those motions.<sup>2</sup> Instead, it overrode the jury's verdict based on an inapplicable affirmative defense and an invalidity theory that Google forfeited.

The court planted the seeds of its ruling early in the case when it pronounced that patentees should not be allowed to “monkey[] around with ... [their] claims” to “read on somebody else's product.” Appx528-530. Then, in the middle of trial, the court declared that a “gimmick ...

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<sup>2</sup> Because the district court denied these motions as moot, Appx105, it will have to address their merits in the event of a remand.

was going on at Sonos to cover the Google product.” Appx20978. The court interrogated Sonos about “what the written description is of how you go about achieving the overlapping zone scenes.” Appx20658.

Sonos repeatedly reminded the court that it had already determined that the specification had written-description support and that Google had previously agreed not to challenge the written description at trial, Appx6992-6998, but the court remained undeterred: “I’m bringing it up myself.” Appx20661.

The court fixated on one sentence that Sonos imported from the 2006 provisional into the zone-scene specification by amendment in 2019, ordering multiple rounds of briefing on the issue (starting after the court raised that issue mid-trial and continuing post-trial).

Appx20949-20950.<sup>3</sup> The court expressed a suspicion that Sonos improperly “snuck [new matter] in there” because the specification had “inadequate written description prior to that date.” Appx20976. Sonos reminded the court that the examiner allowed the 2019 amendment,

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<sup>3</sup> *See also* Appx7610-7616; Appx7617-7623; Appx8182-8237; Appx7943-7954; Appx9214-9230; Appx9319-9326; Appx9407-9415; Appx10484-10504; Appx10505-10525; Appx10526-10538; Appx10539-10550; Appx10937-10941; Appx11001-11018; Appx10942-10959; Appx11064-11068.

thereby determining that Sonos did not add new matter. Appx20974; Appx9326. But the court announced that the zone-scene patents likely lacked an earlier priority date and were thus invalid as anticipated by Google's products, and expressed "great concern ... that I was bamboozled by Sonos." Appx20978; Appx21410. And, returning to the concept of amending claims to cover a competitor's product, the court declared: "That, to me, is not the way the patent system should work," so "we're going to [re]visit that" after the verdict. Appx21412-21413.

The court made good on its promise and vacated the verdict on two grounds. First, the court invoked prosecution laches, rendering the zone-scene patents unenforceable. Appx51. The court held that Sonos had unreasonably and inexcusably delayed by waiting until 2019 to add a claim specifically covering overlapping zone scenes after originally filing the provisional application for that patent family in 2006.

Appx79-82. The court agreed "[t]hat Sonos diligently prosecuted patent applications in the interim." Appx81. But it held that Sonos's diligence made the delay in crafting the narrower claim for overlapping zone scenes "*all the more* unreasonable," because Sonos could have "fil[ed]

parallel applications with new claims covering the invention” earlier. Appx81.

The court also held that Google suffered prejudice. It found that Google would have struggled to investigate the priority chain for the zone-scene patents, and that earlier applications in the chain did not claim or disclose overlapping zone scenes. Appx82-84. The court acknowledged that Sonos did not extend the terms of its patents through any prosecution delay (and could not have done so). Appx84-86. But it found prejudice on the basis that Sonos “let the industry develop and only then sought to extract an invention from a much earlier application that would read on an industry trend.” Appx84-86.

The court based the latter position on the view that Sonos had not disclosed overlapping zone scenes until 2019, by improperly amending the zone-scene specification to add new matter. Because of the purported new matter, the court held that Sonos was entitled only to a 2019 priority date, making Google’s accused products prior art. Appx99. Google forfeited any priority-date challenge, including by not making one in its Rule 50 motions. But the court held the zone-scene

patents invalid, because “[t]hat which infringes if later anticipates if before.” Appx99.

Lastly, the district court contradicted, and vacated, its earlier order concluding that the zone-scene patents had adequate written description for overlapping zone scenes. Now, informed by trial evidence about how Google implemented overlapping zone scenes, the court found that the zone-scene specification disclosed overlapping groups only by inference, which “would not allow a person of skill in the art to recognize that the inventor invented what is claimed.” Appx99-105. Sonos appealed.

## **SUMMARY OF ARGUMENT**

**I.** Prosecution laches reaches only egregious abuses of the statutory patent system where a patentee artificially extends the duration of their monopoly. Prosecution laches does not apply to Sonos’s zone-scene patents because the animating feature for that defense—an unfair timewise extension beyond the period Congress prescribed—is absent here. This Court should not break new ground by endorsing the doctrine’s application in this case.

Even if prosecution laches could apply here, the district court abused its discretion. The court recognized that Sonos “diligently” prosecuted the family of zone-scene patents for 13 years. Nothing in the record suggests that it was unreasonable for Sonos to prioritize other claims over the narrowed claims asserted here, particularly where Sonos submitted the new claims just before releasing its own commercial embodiment practicing them. Moreover, Google could not have been prejudiced by any prosecution delays because Sonos had patent claims covering all zone scenes (overlapping or not) long before Google’s infringing products.

**II.** The district court improperly decided as a matter of law that the zone-scene patents were entitled to only a 2019 priority date because of new matter, and lacked written description in any event. None of these issues went to the jury. Instead, the court stepped into the role of factfinder and impermissibly weighed the evidence in the light *least* favorable to Sonos. Moreover, the court ignored the presumption of validity and the even heavier presumption of correctness for an examiner’s entry of an amendment to the specification.

Had it applied the proper standards, the court would have found that Sonos disclosed overlapping zone scenes long before 2019—no later than its 2007 non-provisional—and that Sonos did not add new matter to the zone-scene specification in 2019. The 2007 application explained that conventional systems struggled to accommodate overlapping speaker groups, and proceeded to disclose through multiple figures and text how zone scenes allowed users to create and save groups with shared members. The one sentence that the district court found to be new matter appeared in the 2006 provisional that was incorporated by reference into every application from 2007 on, describing a figure that was also in the 2006 provisional and has appeared in every application in exactly the same form since 2007. This Court should reverse even if it finds there were disputed issues of fact because Google forfeited these issues multiple times over—including by not raising them in time for Sonos to develop and present relevant evidence to the jury, and by not raising them in its Rule 50 motions.

**III.** At summary judgment, the district court usurped the jury's role by resolving material factual disputes over the validity of the direct-control patents. The parties presented competing expert

testimony about the scope of the prior art, and the court had no authority to decide which expert's reading was better.

### **STANDARD OF REVIEW**

This Court reviews de novo the district court's grant of summary judgment, *Adasa Inc. v. Avery Dennison Corp.*, 55 F.4th 900, 907 (Fed. Cir. 2022) (applying Ninth Circuit law), and of judgment as a matter of law (JMOL), *Geo. M. Martin Co. v. Alliance Machine Sys. Int'l LLC*, 618 F.3d 1294, 1300 (Fed. Cir. 2010) (applying Ninth Circuit law). JMOL is improper unless "the evidence, construed in the light most favorable to the nonmoving party, permits only one reasonable conclusion." *Id.* (citation omitted).

This Court reviews for abuse of discretion the district court's determination of prosecution laches. *Personalized Media Commc'ns, LLC v. Apple Inc.*, 57 F.4th 1346, 1353 (Fed. Cir. 2023) (*PMC*). The district court abused its discretion if it made "an error of law or clearly erroneous factual findings." *Id.* (citation omitted).

## ARGUMENT

### **I. The District Court Abused Its Discretion In Holding The Zone-Scene Patents Unenforceable Because Of Prosecution Laches.**

The district court's laches ruling was a blatant exercise in judicial legislation. The court minced no words about its disapproval of using continuation applications to tailor claims to commercial embodiments. Undeterred by this Court's emphatic holding that Congress had condoned that practice, the district court declared that this is "not the way the patent system should work." Appx21412. So the court distorted an equitable doctrine that has never been applied to this circumstance, and that simply does not fit, to reshape the patent system more to its liking. And in support of that extraordinary result, the court recast an entirely unremarkable prosecution into a narrative of Sonos "enrich[ing]" itself through "delay and sleight of hand." Appx105.

This Court has two options for reversal. The first is holding that the doctrine is categorically unavailable here because everyone agrees that nothing Sonos did extended the duration of its patent monopoly. The second is holding that Google failed to prove either element of laches.

**A. Prosecution laches does not apply because Sonos did not extend the duration of its monopoly.**

1. Prosecution laches should be used “sparingly.” *Symbol Techs., Inc. v. Lemelson Med., Educ. & Rsch. Found.*, 422 F.3d 1378, 1385 (Fed. Cir. 2005). It addresses only “egregious cases of misuse of the statutory patent system,” *id.*, where a patentee artificially extends its monopoly period through bad-faith prosecution conduct that delays a patent’s issuance “and thus puts off the free public enjoyment of the useful invention,” *Woodbridge v. United States*, 263 U.S. 50, 56 (1923). Before this case, no court has ever found a patent unenforceable under prosecution laches unless the patentee’s prosecution delay extended its monopoly period, which everyone agrees Sonos did not do.

The Supreme Court’s early cases on prosecution laches punished a patentee who secured an “undue extension of the patent monopoly,” thereby “subvert[ing] [the] limitations” of patent law. *Webster Elec. Co. v. Splitdorf Elec. Co.*, 264 U.S. 463, 466 (1924). For example, the Court applied prosecution laches to a patentee who “postpone[d]” “the beginning of the term of his monopoly” to a time when he could profit most from the patent. *Woodbridge*, 263 U.S. at 56. That “designed delay” was “an evasion of the [patent] statute” because it “put[] off the

free public enjoyment of the useful invention.” *Id.*; see also *Crown Cork & Seal Co. v. Ferdinand Gutmann Co.*, 304 U.S. 159, 168 (1938) (recognizing prosecution laches as punishing the “enlarge[ment] [of] the patent monopoly beyond that contemplated by the [patent] statute”).

This Court has adopted the same rule, and its cases fit the same pattern. Its first prosecution laches opinion rebuked a patentee who “deliberately postponed the free public enjoyment” of the claimed invention through a “deliberate and consistent course of conduct” that caused “exceptional delay in advancing the prosecution and the issuance of a patent.” *In re Bogese*, 303 F.3d 1362, 1363-65 (Fed. Cir. 2002). Specifically, the Patent Office rejected claims in a patent application, yet the applicant included the same rejected claims in a dozen successive continuation applications without amending or addressing the reasons for the rejection. *Id.* Worse, the applicant also abandoned each previous application. *Id.* By the time the Patent Office denied the latest continuation application based on prosecution laches, nearly 20 years had passed since the original application. *Id.* at 1365.

In every prosecution laches case since, patentees delayed prosecution in bad faith to extend their monopolies beyond the statutory

period by *decades*—typically through tactics like drowning the Patent Office in thousands of identical claims. *Infra* § I.B.1. In one case, the patentee “bulk-filed” 381 applications that claimed priority to more than 40 applications filed between 1969 and 1983, and then managed to delay prosecution for 44 years from the first application. *Hyatt v. Hirshfeld*, 998 F.3d 1347, 1353-56 (Fed. Cir. 2021). In another, the patentee bulk-filed 328 applications that claimed priority to a 1987 application, and then finagled delays so the relevant patent did not issue for another 25 years. *PMC*, 57 F.4th at 1350-53; see *Symbol Techs.*, 422 F.3d at 1380, 1386 (patentee delayed issuance up to 39 years for applications initially filed in the 1950s). The defining feature of each case was a patentee who abused the patent system by manipulating continuations to extend their patent monopoly far beyond the then-applicable 17-years-from-issuance term Congress had prescribed.

Prosecution laches provided an important safeguard against these sorts of abuses back when the patent term ran from the date of issuance. Under that regime, patentees could “abandon[] applications and fil[e] continuing applications in their place” almost “indefinitely,”

thereby exploiting both the original application's priority date and the continuing application's later issuance date. *Hyatt*, 998 F.3d at 1351-52 (citation omitted).

Congress largely eliminated that problem with its 1995 amendment that changed the patent term to run from the application's filing date, rather than the issuance date. *Id.* Under today's regime, a delay in prosecution normally *erodes* the monopoly period, because the clock starts ticking as soon as the inventor files a non-provisional priority application.

Sonos filed its applications after 1995, so whether Sonos prosecuted the zone-scene patents at a snail's pace or at lightning speed, its patents will expire in 2027. Appx84. Any delay in prosecution reduced Sonos's zone-scene monopoly period by over a decade, to under eight years. Appx7608. The crucial factor that drove every previous prosecution laches case is thus missing here.

**2.** The district court did not suggest that Sonos secured an improper timewise extension of its patents. Instead, it found that the delay was otherwise inequitable, relying on false premises—factual and legal.

The first faulty premise was that Sonos had “*never claimed ... [or] disclosed*” overlapping zone scenes until years after competitors developed products practicing that invention. Appx83. If the premise about disclosure were correct, then the claims would be invalid. Courts do not need prosecution laches to address such concerns. *See Symbol Techs.*, 422 F.3d at 1385 (noting that filing continuations is permissible, and that concerns over “subject matter” added to support new “claims as the development of an invention progresses” should be addressed via validity doctrines). Regardless, the specification *did* teach overlapping zone scenes; and Sonos *did* obtain broad claims covering *all* zone scenes (overlapping or not) long before any competitors offered products with overlapping zone scenes. *Infra* §§ I.B.2, II.A. And while attributing a nefarious motive to Sonos, the court failed to acknowledge that Sonos had good reason to add those narrowed claims limited to overlapping zone scenes in 2019: to cover *its own* imminent commercial embodiment, released in 2020. Appx20287.

A second faulty premise was that the prior art disclosed “zone scenes.” Appx90-91. That premise led the court to conclude Sonos could validly claim nothing but “niche variations [on zone scenes] of

little consequence.” Appx72. Whether the prior art disclosed zone scenes was a central factual dispute at trial, Appx21846-21850 (Google’s closing argument), which Google lost, Appx10347-10348. *See Akamai Techs., Inc. v. Cable & Wireless Internet Servs., Inc.*, 344 F.3d 1186, 1192 (Fed. Cir. 2003) (courts “must presume that the jury resolved all factual disputes in favor of the prevailing party ... as long as they are supported by substantial evidence”). The clearest explanation for the jury’s validity finding is that it agreed with Sonos that the prior art did not teach zone scenes (overlapping or not). Appx21810-21821. The district court thus had no basis for these fact-findings (and indeed cited none).

Underlying all this was an incorrect legal premise: that it is inequitable to use continuation applications to add claims that cover a competitor’s products. This Court has held that it is not “in any manner improper” to “amend [to] insert claims intended to cover a competitor’s product the applicant’s attorney has learned about during ... prosecution,” including through continuations. *Kingsdown*, 863 F.2d at 874; *see Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 909 n.2 (Fed. Cir. 2004). That becomes improper only when paired with some

abuse that extends the term of a patent’s monopoly—which is concededly missing here.

**B. The district court erred in applying prosecution laches to standard continuation practice yielding no prejudice.**

Even assuming prosecution laches could apply here, the district court erred. Google had to prove, by clear and convincing evidence, that: (1) Sonos’s “delay in prosecution [was] unreasonable and inexcusable under the totality of circumstances”; and (2) Google “suffered prejudice attributable to the delay.” *PMC*, 57 F.4th at 1354, 1357; see *Cancer Rsch. Tech. Ltd. v. Barr Lab’ys, Inc.*, 625 F.3d 724, 732 (Fed. Cir. 2010) (applying clear-and-convincing standard for the defense of inequitable conduct); *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1287 (Fed. Cir. 2011) (en banc) (same); cf. *Microsoft Corp. v. i4i Ltd. P’ship*, 564 U.S. 91, 95 (2011) (35 U.S.C. “§ 282 requires an invalidity defense to be proved by clear and convincing evidence”). Google failed to prove either element.

**1. Sonos did not unreasonably delay prosecution.**

**a.** Google presented literally no evidence of unreasonable or inexcusable delay. Google (and the court) relied solely on the time that

elapsed between the filing date of the provisional and the filing date of the claims asserted here. The district court's opinion contained the seeds of its destruction in agreeing that Sonos "diligently prosecuted [its] patent[s]" in the priority chain between 2006 and 2019, when Sonos first expressly limited some claims to zone scenes that overlap. Appx80-81. It did not (and could not) fault Sonos for the seven years that the Patent Office took to issue the first patent. And it had no legitimate complaint about anything Sonos did during prosecution in the next six years.

The prosecution up to that point was not only diligent, but also unremarkable. After Sonos filed the 2006 provisional and 2007 non-provisional applications, its sequential continuations claimed different aspects of its zone-scene invention disclosed in the specification. Sonos never abandoned any applications in the priority chain for the zone-scene patents. Contrary to the district court's insinuations, Appx98, nothing in the record suggests that those applications buried the Patent Office in an inordinate volume of materials, or that any aspect of Sonos's prosecution strategy troubled the Patent Office in any way or caused any prosecution delay. All Sonos did was keep the trains

moving on each of its applications from start to finish, through normal continuation practice that this Court has stressed is “legitimate” and can trigger prosecution laches only “sparingly lest statutory provisions be unjustifiably vitiated.” *Symbol Techs.*, 422 F.3d at 1385.

Unlike the patentees in *PMC* and *Hyatt*, Sonos did not overwhelm the Patent Office with “hundreds of burdensome” applications with hundreds of claims each. *PMC*, 57 F.4th at 1354; *Hyatt*, 998 F.3d at 1353. *Hyatt*, for example, pursued about 45,000 independent claims in total, which the Patent Office estimated would take “532 years of examiner time” to process. *Hyatt*, 998 F.3d at 1353-55; *see PMC*, 57 F.4th at 1350-51 (applications had as many as 20,000 total claims). Here, nothing in the record even hints that the Patent Office struggled to process the zone-scene applications.

Nor did Sonos “intentionally create[]” any delay by, for example, “engaging in a pattern of rewriting claims entirely ... midway through prosecution [to] restart[] examination,” or by filing applications with unamended, previously examined claims simply to keep the priority chain alive rather than “substantively advance prosecution.” *Hyatt*, 998 F.3d at 1368; *PMC*, 57 F.4th at 1355; *Bogese*, 303 F.3d at 1363-65, 1369.

Rather, Sonos properly amended its claims over time and never abandoned any applications in the patents' priority chain.

In short, Sonos's conventional prosecution conduct is not even in the same universe as the pattern of bad-faith conduct that has previously triggered prosecution laches.

**b.** The district court discounted the diligent prosecution history through 2019 by zeroing in on the time it took Sonos—“*over thirteen years,*” Appx79-80—to narrow its claims to *overlapping* zone scenes. The court ignored that more than half of that period (seven years) was time it took the Patent Office to issue the first ancestor patent. Notably, the Patent Office granted Sonos a term adjustment of almost four additional years precisely because Sonos was not to blame. Appx8463 (granting 1443-day adjustment for U.S. Patent No. 8,483,853). But the court declared that Sonos should have acted earlier to take the “small step” of “filing parallel applications with new claims covering” the overlap element more specifically. Appx81. That was wrong on multiple levels.

To start, a delay in prosecuting particular claims, on its own, is not enough to trigger prosecution laches. Any delay must be

“unreasonable,” which depends on “the specific circumstances” surrounding the prosecution history. *Hyatt*, 998 F.3d at 1366. Google presented no evidence that Sonos’s sequencing decision was at all unreasonable. And the district court cited none. Instead, it faulted Sonos for “never provid[ing] any sworn explanation for why it waited until April 2019 to claim overlapping zone scenes.” Appx80. But the burden was on Google; Sonos had no obligation to explain its sequencing decisions and reveal its prosecution strategies. And as the court knew, Sonos did not introduce overlapping zone scenes into its own products until 2020. Appx20287. It is perfectly reasonable for a patentee to wait to spend the resources to claim a particular feature until the patentee is ready to practice it in a commercial product.

More generally, no laches case has ever suggested that a court can isolate one prosecution decision just because that is what ended up “matter[ing]” in a particular litigation. Appx81. The question “of unreasonable delay is not limited to the circumstances surrounding the *particular* application at issue,” but encompasses more broadly “the prosecution history of *all* of a series of related patents.” *Hyatt*, 998 F.3d at 1362 (latter part quoting *Symbol Techs.*, 422 F.3d at 1386) (emphases

added). That focus is inherent in the rule that the doctrine focuses on the “totality of the circumstances,” *Hyatt*, 998 F.3d at 1363—not on any isolated decision on when to claim a particular aspect of the invention.

The court’s focus on that one decision presents a frontal assault on the continuation practice Congress codified, the Patent Office implements, and this Court has blessed. 35 U.S.C. § 120; *Kingsdown*, 863 F.2d at 874. Continuation applications are a standard feature of patent prosecution. They are how “the patent examiner and the applicant, in the give and take of rejection and response, work toward defining the metes and bounds of the invention to be patented.” *In re Buszard*, 504 F.3d 1364, 1366-67 (Fed. Cir. 2007).

Moreover, the court was wrong to suggest that adding a set of claims is a “small step.” Prosecution is expensive and time-consuming. To force a patentee to prosecute all its claims at once would squander one of the most important benefits of continuation applications: easing the burden on applicants who lack the resources to prosecute applications concurrently and would otherwise “be forced to accept protection on less than [they] had [the] right to protect.” The Comments of the Biotechnology Industry Organization on the USPTO’s

Proposed Rule Changes, 25 Biotech. L. Report 473, 475 (2006). It is not for a court to change the law, particularly where Congress has considered, and rejected, amendments aimed at modifying continuation practice.<sup>4</sup>

The district court's approach would discourage the early and complete disclosure of new innovations and imperil innumerable patents with long priority chains. There are many thousands of patents with spans of more than ten years from the earliest priority date to filing date. See PatentsView, USPTO, Annualized Data Tables, <http://tinyurl.com/3a32yrxp>. Google itself owns such patents—including some with 14-year gaps that it asserted against *Sonos* in other litigation. See *Google LLC v. Sonos, Inc.*, No. 20-cv-03845-EMC (N.D. Cal.) (Patent Nos. 10,229,586 and 10,140,375). They are all vulnerable to challenge if courts can just deem them unreasonably late.

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<sup>4</sup> Compare Patent Reform Act of 2005, H.R. 2795, 109th Cong. § 8 (2005) (proposing granting the USPTO Director authority to limit continuation practice so long as the limitations do not deny “applicants an adequate opportunity to obtain claims for any invention disclosed in an application for patent”), with Patent Reform Act of 2005: Hearing Before the Subcomm. on Courts, the Internet, and Intellectual Property, 109 Cong. (2005), p. 21 (statement of Robert B. Chess) (applauding the rejection of the proposal to permit limitations on continuation practice).

c. The district court mentioned two other points in support of its ruling—both meritless. The first was a remark from a Sonos lawyer that the priority chain was “confusing.” Appx82 (quoting Appx20969). But any confusion in the priority chain was merely a function of standard continuation practice. Google submitted *no evidence* that Sonos engineered the confusion—much less that it did so for inequitable purposes or that any purported confusion was at all relevant to the delay in prosecuting the zone-scene patents.

The second was that Sonos submitted thousands of pages of material to the Patent Office (via Information Disclosure Statements) during prosecution. Appx98. Many of those pages were litigation filings that post-date the applications; far from being “superfluous,” Appx98, Sonos submitted them to comply with Patent Office regulations. *See* 37 C.F.R. § 1.56 (duty of candor). More important, Google offered *no evidence* that the materials submitted were excessive or that they in any way impeded the Patent Office’s examination.

\* \* \*

In sum, nothing in the district court’s opinion came close to showing that Sonos perpetrated the sort of unreasonable and

inexcusable delay that amounts to “egregious ... misuse of the statutory patent system” and can trigger prosecution laches. *Symbol Techs.*, 422 F.3d at 1385.

**2. Google suffered no prejudice.**

The district court had no basis for finding prejudice. Google had to show by clear and convincing evidence that Sonos’s invention remained out of public view while Google invested in its infringing products during the purported delay. *See Cancer Rsch.*, 625 F.3d at 729-30; *Woodbridge*, 263 U.S. at 56 (recognizing that delay prejudices those “without knowledge” of the invention). The record negates any such conclusion.

Google claims to have “beg[un] investing in its products” in 2015. Appx11053 (Google motion). By then, Sonos had long since disclosed overlapping zone scenes *and* secured patent claims that covered multiple zone scenes (overlapping or not).

Sonos first disclosed overlapping zone scenes nearly a decade earlier—in 2006—via its provisional application, which became public in 2013. Appx8187; Appx8191. Sonos’s 2007 non-provisional application likewise disclosed overlapping zone scenes. *See infra* § II.A.

And the applications for the zone-scene patents incorporated by reference the 2006 provisional application and the 2007 non-provisional application that issued in 2013. *See* Appx8194-8195; Appx8186 (priority chain for both patents).

Sonos also secured broad claims that covered products with overlapping zone scenes. Sonos's U.S. Patent No. 8,843,228, a direct ancestor to the '885 and '966 patents, issued in September 2014, and claims a controller programmed to "invoke a zone scene of the one or more zone scenes," each zone scene containing "two or more of the plurality of independent playback devices." Appx8527-8545, claim 6; *see also id.* (claim 10); Appx7493-7575 (2018 presentation to Google showing overlapping groups as an implementation that infringes the '228 patent). In other words, the '228 patent claimed a controller that displayed multiple zone scenes and allowed a user to choose from among the zone scenes. Nothing in the claims of the '228 patent prohibits overlapping zone scenes. So Google's overlapping zone scenes would have infringed the '228 patent from the start. Yet Google continued to pursue the release of its infringing products. Google's decision to launch a product that infringed already-issued claims

precludes showing prejudice. *See i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 863 (Fed. Cir. 2010) (recognizing that an infringer cannot complain about the costs it incurred because of its infringing activities).

This case is thus nothing like the cases finding prejudice based on an infringer's investments in infringing products. In *PMC*, for example, the patentee had a strategy of "hiding its technologies, quietly monitoring infringement, and rolling out patents over time" to bring infringement suits. *PMC*, 57 F.4th at 1352 (cleaned up). Because the patentee "conceal[ed] its inventions," unsuspecting inventors unwittingly invested in infringing products, only to be ambushed with patent claims. *Id.* at 1353.

The district court nonetheless concluded that Google could not have been expected to figure out that Sonos claimed overlapping zone scenes because "unearthing the layers of file histories would have resembled an exercise in archeology." Appx82. No archeology was necessary to read the 2006 provisional application, the 2007 non-provisional application, or the '228 patent, which disclosed, and then claimed, the invention well before Google invested in its infringing products in 2015.

The district court’s prejudice analysis also overlooked that Sonos and Google met in 2013 and 2014 to discuss the possibility of integrating Google’s streaming service with Sonos’s products. *Supra* 11-12. That meeting gave Google ample notice to investigate Sonos’s patents, which would have revealed Sonos’s zone-scene patent family. In fact, Sonos specifically gave Google notice in 2016 that Google was infringing the ’228 patent. Appx7601-7602.

Moreover, the district court discounted the specifications and support in the 2006 and 2007 applications, saying that claims (not specifications) “define the scope of a patented invention.” Appx83. It took the startling position that anything not claimed in the first application is “dedicated to the public.” Appx81 (quoting *Eli Lilly & Co. v. Hospira, Inc.*, 933 F.3d 1320, 1334 (Fed. Cir. 2019) (citations omitted)). But *Eli Lilly* has nothing to do with finding prejudice for purposes of prosecution laches. That case involved the “disclosure-dedication” limitation on the doctrine of equivalents—that a patentee cannot use the doctrine of equivalents to expand claims to capture subject matter expressly disclosed but not claimed. *Eli Lilly*, 933 F.3d at 1329-34. Moreover, the very next sentence of *Eli Lilly* recognizes

that material “claimed in a continuation or other application based on the disclosure” is not dedicated to the public—exactly what happened here. *Id.* at 1334; *see Gen. Talking Pictures Corp. v. W. Elec. Co.*, 304 U.S. 175, 182-83 (1938) (rejecting argument that inventor filing “an application for patent showing and describing, but not claiming, certain inventions cannot obtain a valid patent for said inventions” through a continuation application because the original application disclosed inventions before their public use). Otherwise, continuation applications—which by definition include claims omitted from the ancestor applications—would be useless.

In sum, any “prejudice” Google suffered by investing in and releasing infringing products was entirely its own making.

## **II. The District Court Erred In Granting JMOL On The Priority Date And Written Description Of The Zone-Scene Patents.**

In the same opinion that found Sonos’s zone-scene patents unenforceable for prosecution laches, the district court entered a contradictory judgment that the patents are also invalid. The district court found the patents anticipated in two steps: (1) finding that Sonos’s zone-scene patents lacked adequate written-description support without

the benefit of one sentence that Sonos added to the specification from the provisional by way of a 2019 amendment; and (2) concluding that this delayed the patents' priority date to 2019, which meant that Google's accused products anticipated them. The court then vacated its summary judgment ruling on written description, finding that the specification lacked adequate support for overlapping zone scenes even after the 2019 amendment. Here is the contradiction: If Sonos did not disclose the invention before 2019, there was no 13-year delay in claiming it and no basis for finding prosecution laches. The district court's rulings thus cannot stand together. Regardless, the invalidity finding independently merits reversal.

Before explaining why, it is important to appreciate the unorthodox—and highly unfair—procedural posture in which this issue arose. Google raised a written-description argument at summary judgment (with an undeveloped allegation that Sonos added unspecified new matter), focusing primarily on the same element that drove the district court's JMOL ruling—"overlapping" groups. Appx4913-4917. Separately, Google's expert explicitly noted the 2019 amendment to the specification that the district court later seized upon. Appx10985. Yet,

Google did not advance either a new-matter or priority-date challenge based on the 2019 amendment before trial. *See* Appx4913-4914. The district court denied Google’s summary judgment motion. Appx5416-5419.

Google never presented either a written-description or new-matter challenge at trial through its expert or jury instructions. Quite the opposite: Google agreed before trial (and reaffirmed mid-trial) that it would not try written description to the jury, Appx6993; Appx6995; Appx21407; conceded a 2005 conception date of the zone-scene invention, Appx59; Appx20447; Appx20451; Appx20643; and effectively conceded a 2006 priority date, Appx11010-11016.

In the face of Google’s forfeiture, the district court, in the middle of trial, seized upon a single sentence in the 2019 amendment—the very same sentence Google’s expert had noted nearly a year earlier. Based on that sentence, the court came to believe that Sonos lacked written-description support for overlapping zone scenes before the amendment, and that Sonos had tricked the Patent Office into issuing the zone-scene patents with a 2006 priority date.

The court never presented these issues to the jury or allowed Sonos to develop and present evidence refuting that position. And Google did not pursue them in its Rule 50(a) or 50(b) motions—both of which Google filed *after* the district court repeatedly raised its concerns. Nevertheless, the court granted post-verdict JMOL to Google based on a trial record built around different issues. Appx86-99. But each step of the court’s analysis depended on factual assertions that were either wrong, or at a minimum disputed. *See Commonwealth Sci. & Indus. Rsch. Org. v. Buffalo Tech. (USA), Inc.*, 542 F.3d 1363, 1380 (Fed. Cir. 2008) (new matter is a question of fact); *Koito Mfg. Co. v. Turn-Key-Tech, LLC*, 381 F.3d 1142, 1149 (Fed. Cir. 2004) (written description and anticipation are questions of fact); *supra* 25 (JMOL standard). The court left no doubt that it was finding facts: It explicitly announced that any “declarative statements” in its opinion constituted “findings of fact,” Appx52, and even found Sonos’s inventor “not credible,” Appx91. And the court did not acknowledge, let alone apply, Google’s burden of proof to invalidate an issued patent or the further presumption of correctness that applies to the examiner’s entry of an amendment to the specification. *See infra* 50, 60.

When these standards are properly applied, the evidence permits only one reasonable conclusion as a matter of law: Sonos disclosed overlapping zone scenes by 2007 at the latest, *infra* § II.A, and thus, Sonos did not add new matter to the specification in 2019, *infra* § II.B. At a minimum, Sonos created a dispute of fact as to each. Regardless, reversal is required, because the issues were forfeited multiple times, including when no one—neither Google nor the district court—raised them in time to afford Sonos the opportunity to develop relevant expert opinions and try them to a jury, and again when Google failed to raise them in Rule 50 motions. *Infra* § II.C.

**A. Sonos disclosed overlapping zone scenes no later than 2007, even without the 2019 amendment.**

“The priority date for later-added patent claims depends on when the claimed subject matter first appeared in the chain of patent applications from which the claims arose.” *Paice LLC v. Ford Motor Co.*, 881 F.3d 894, 906 (Fed. Cir. 2018). “For claims to be entitled to a priority date of an earlier-filed application, the application must provide adequate written description support for the later-claimed limitations.” *Id.*; see 35 U.S.C. § 120. That means that Sonos’s earlier-filed application must “describe[] the invention in such a way that it is

understandable to a person of ordinary skill in the art.” *Pozen Inc. v. Par Pharm., Inc.*, 696 F.3d 1151, 1167 (Fed. Cir. 2012). And to overcome the presumption of a patent’s validity, Google had to “show a lack of written description by clear and convincing evidence.” *Rivera v. ITC*, 857 F.3d 1315, 1319 (Fed. Cir. 2017).

Sonos disclosed overlapping zone scenes long before the 2019 amendment. The 2006 provisional application, or, at the latest, the 2007 non-provisional application provided adequate written-description support. *See* Appx8238-8365. Sonos incorporated both applications by reference into all the subsequent continuation applications in the patent family, including the ’885 and ’966 patents. And the 2007 non-provisional specification contained adequate written-description support by itself. The zone-scene patents are thus entitled to a priority date that safely predates Google’s 2015 release of its infringing products (and Google did not offer any purported prior art in the 2006-2007 timeframe).

The 2007 application explains that Sonos’s invention addresses a problem with conventional audio systems: the need for overlapping speaker groups. It observes that “traditional system[s]” proved

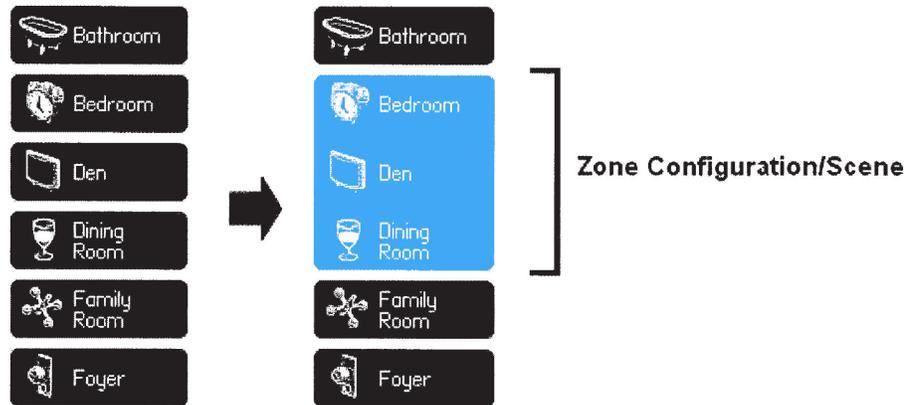
cumbersome for users who wanted to listen to different audio sources on different combinations of players at different points in the day.

Appx8332-8333. It offers as an example, listening “in a bedroom, a bathroom and a *den*” at one point; later, “in the *den* and the living room”; and yet later “in the *den*, the living room, and a kitchen.”

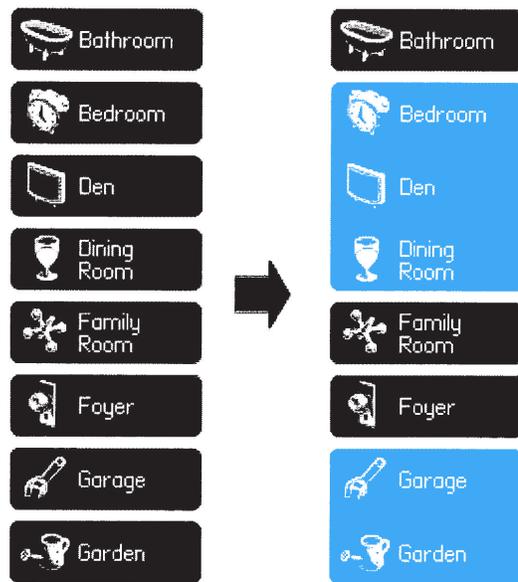
Appx8332 (emphases added). It continues: “Because the [three groups] contain the den”—i.e., because the groups overlap—it is “difficult for the traditional system to accommodate the requirement of dynamically managing the ad hoc creation and deletion of groups.” Appx8332-8333.

The specification then explains how Sonos’s invention solves that problem by allowing the user to predefine and save multiple groups of speakers—including groups that contain overlapping members like the den—and then later invoke any group for synchronous playback.

Figures 3A and 3B of the 2007 application, for instance, illustrate two zone scenes with overlapping members:



**FIG. 3A**



**FIG. 3B**

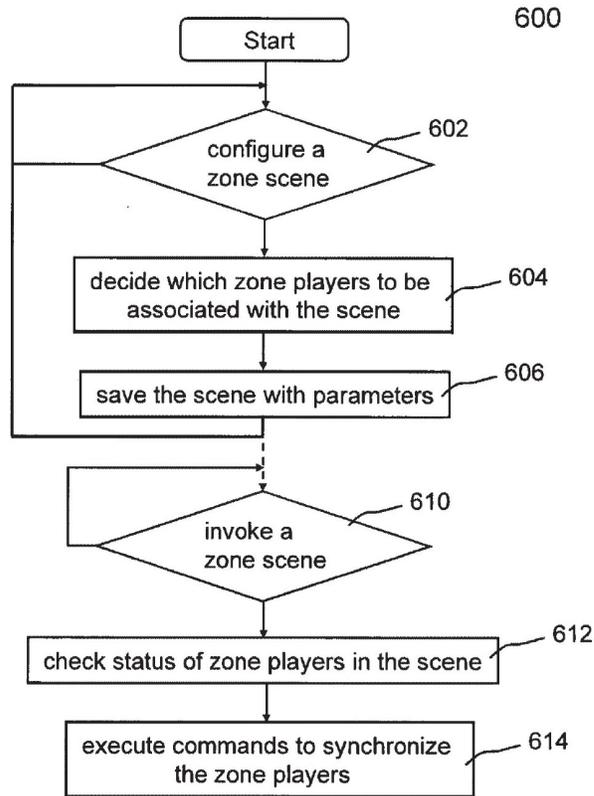
Appx8359-8360 (colorization added); *see* Appx8251, Appx8260-8261 (same images and descriptions in the 2006 provisional). The corresponding descriptions explain that the “Morning” zone scene “link[s] the Bedroom, Den and Dining Room,” Appx8345 (referring to Figure 3A), while the “Evening” zone scene overlaps with the same

three—“Bedroom, Den, [and] Dining Room”—and *adds* the “Garage [and] Garden,” Appx8346 (referring to Figure 3B).

These figures and corresponding descriptions tell a person of ordinary skill that the Morning and Evening scenes overlap. That is precisely what Sonos’s expert said when opining on the same disclosures in the ’885 specification at summary judgment. Appx5210-5211. Yet the district court disregarded these disclosures and the expert’s opinion about what they mean to one skilled in the art. The court said Sonos was “picking and choosing claim elements from different embodiments that are never linked together in the specification.” Appx92 (citation omitted). But these embodiments and corresponding descriptions not only appear together, but are presented as complementary components of the same Figure 3. Especially in light of the problem that Sonos described earlier in the specification, *supra* 50-51, a person of ordinary skill would understand that the Morning and Evening zone scenes share overlapping members. At the very least, a reasonable juror could so find. *See supra* 25.

Sonos’s expert also opined at summary judgment that a skilled artisan would understand Figure 6, which remains unchanged from the

2007 specification, as disclosing multiple, coexisting zone scenes that can share overlapping members. Appx5209-5211.



**FIG. 6**

Appx8365.

The specification explains that, at step 604, “a [controller] is provided to facilitate a user to select *any* of the players in the system to form respective groups each of which is set up per a scene.” Appx8334 (emphasis added). Then, when a user saves a zone scene to invoke later (step 606), the specification explains that “*various scenes* may be saved in *any of the members* [i.e., players]....” Appx8334 (emphases added). If

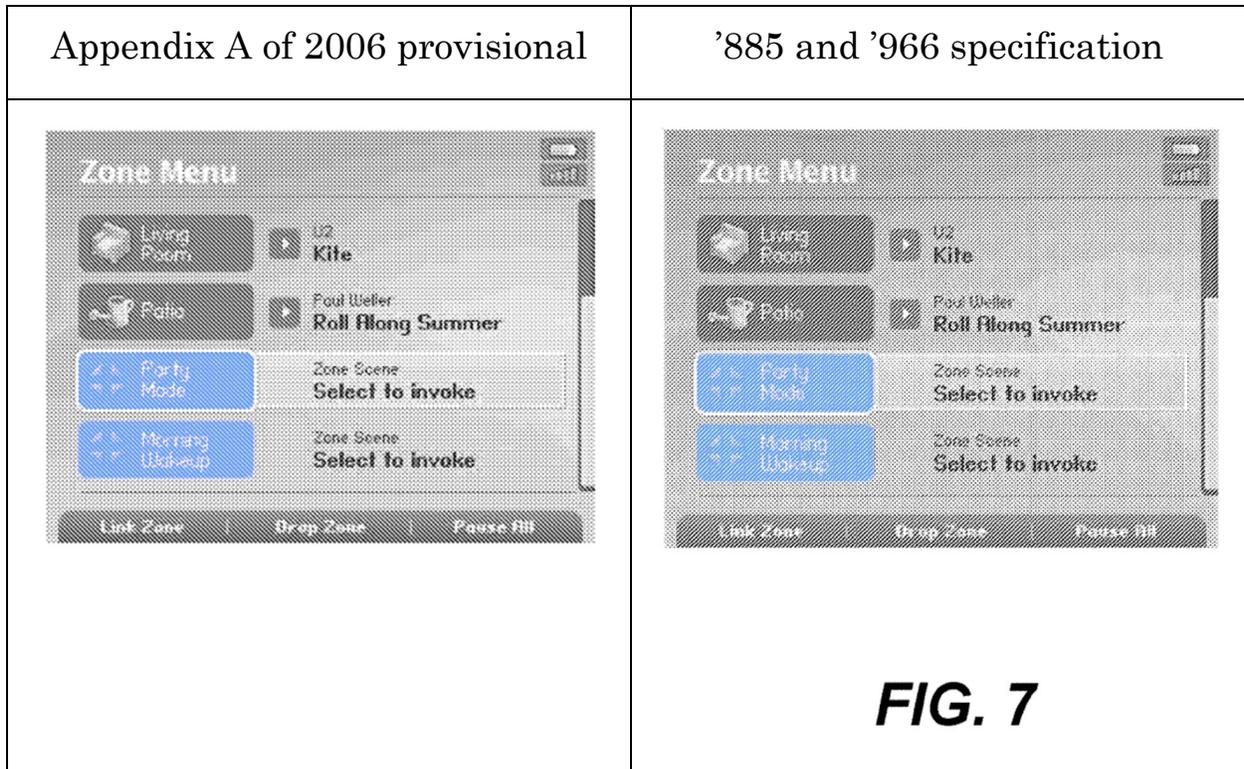
two zone scenes could not share the same speaker, there would be no reason for any speaker to save “various scenes” to invoke later, because a speaker would only save, at most, one scene. *See* Appx5210-5211.

The district court itself invoked this various-scenes sentence when denying Google’s written-description challenge before trial. Appx5417.

As yet further evidence of Sonos’s early disclosure of overlapping zone scenes, both the 2006 and 2007 applications also describe a zone scene comprised of *all the players in a system* alongside a zone scene made up of a *subset* of players. Specifically, after describing a Morning zone scene, the 2006 provisional explains that “[o]ptionally, a system may be supplied with a command that *links all zones* in one step” as “a simple form of a zone scene.” Appx8252 (emphasis added); Appx8345-8346 (2007 non-provisional). By disclosing two zone scenes that necessarily share players, these descriptions show that Sonos’s invention encompassed overlapping zone scenes. *See* Appx5210.

Google’s own expert acknowledged this when testifying on obviousness. He testified that Figure 7 showed two zone scenes: “One is the morning wake-up zone scene ... that is the den, the bedroom, et cetera; and then another one which is Party Mode, which is all of the

zones in the house, *all of the speakers in the house.*” Appx21338 (emphasis added). In other words, he agreed that this image alone discloses overlapping zone scenes. As illustrated below, Sonos first disclosed this same figure in the 2006 provisional:



Appx8196-8197 (colorization added); Appx8263.

Without acknowledging the testimony of Google’s own expert, the district court rejected the import of Figure 7 by insisting that at the time of the 2006 provisional, a skilled artisan would not “have ... understood that the ‘Party Mode’ zone scene would group all of the zone players in a system.” Appx90. That was at least a disputed question of

fact. Even Google itself conceded at one point that the conception documents, referred to as the “UI [user interface] documents,” “disclose a user-configurable zone scene such as a morning scene that includes fewer than all zone players, as well as a party mode zone scene that includes all zone players, thereby necessarily disclosing an overlap between those zone scenes.” Appx10954. The district court simply failed to review all this evidence in the light most favorable to Sonos, or against the presumption of validity.

To make matters worse, the court based its conclusion on a credibility determination. The court found Sonos’s inventor’s testimony about differences between the conception documents and the provisional application “not credible.” Appx91. That flouted the axiom that “credibility determinations, the weighing of the evidence, and the drawing of legitimate inferences from the facts are jury functions, not those of a judge.” *Hangarter v. Provident Life & Acc. Ins. Co.*, 373 F.3d 998, 1005 (9th Cir. 2004) (citation omitted).<sup>5</sup>

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<sup>5</sup> The district court later veered into an irrelevant discussion of the “dynamic leader rating” in Google’s system, finding that “nothing in the specification of the patents in suit explained such a solution.” Appx103-104. But the claims do not recite a “dynamic leader rating”—that is just

This Court should reverse the invalidity findings. Contrary to the district court’s view, this was not “a case of the industry leading with something new and, only then, an inventor coming out of the woodwork to say that he had come up with the idea first.” Appx52. And the invention was not “lurking beneath the surface.” Appx86. Google stipulated—and the court agreed—that Sonos “conceived of the claimed invention in 2005,” the year before it filed its provisional application. Appx85. And every version of the application from then on described the invention, in multiple ways, for anyone to see.

**B. Sonos did not add new matter to the zone-scene specification in 2019.**

The basis of the district court’s conclusion that the claims lacked written description was a finding that Sonos’s 2019 amendment added new matter to the specification by adding a single sentence: “The list of zones in the user interface 520 includes ALL the zones in the system, including the zones that are already grouped.” Appx94-99. The

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how Google allegedly implemented overlapping zone scenes—so Sonos was not required to provide such support. *See Crown Packaging Tech., Inc. v. Ball Metal Beverage Container Corp.*, 635 F.3d 1373, 1383 (Fed. Cir. 2011).

addition of this sentence cannot be a basis for invalidating the patent because the rest of the disclosures discussed above—the problem to be solved, the solution described in Figures 3A and 3B, the description of an all-players zone scene, and Figures 6 and 7—supported the claims on their own.<sup>6</sup> Nor does that added sentence justify the district court’s narrative that Sonos engaged in an underhanded tactic to shore up the written description: Before ever adding the offending sentence, Sonos presented claims requiring overlapping zone scenes to the Patent Office, and the Patent Office did not issue a written-description rejection in response. *Infra* 66-67. Regardless, the district court’s new-matter finding was wrong—both legally and factually—and, at a minimum, sufficiently disputed to preclude JMOL.

Sonos’s amendment to the specification complied with the Patent Office’s regulations that “material incorporated by reference into the specification or drawings of an application” may be inserted “by way of an amendment to the specification or drawings” as long as the

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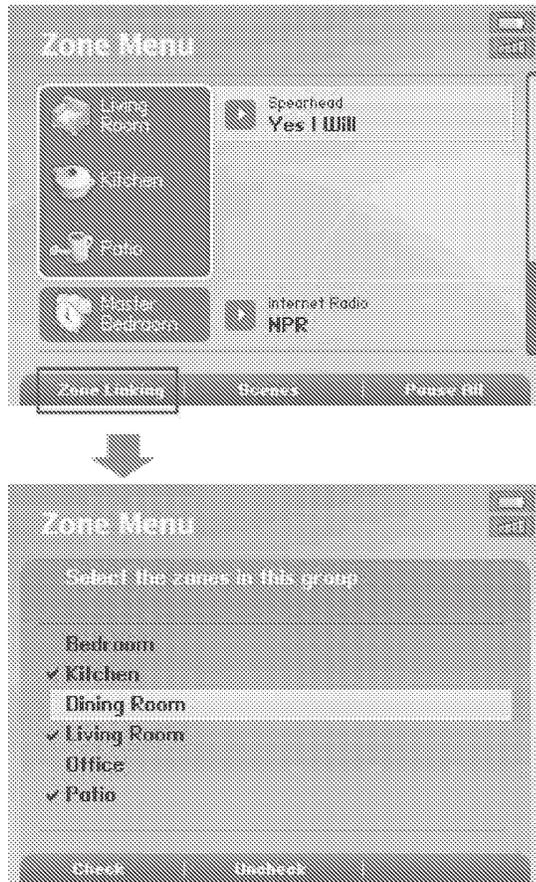
<sup>6</sup> The 2019 amendment also added Figures 7 and 8 and their corresponding descriptions. Appx23005-23006; Appx23010; Appx32432-32433; Appx32437. Neither Google nor the district court ever suggested Figures 7 and 8 constituted new matter. *See* Appx100-101.

amendment “contains no new matter.” 37 C.F.R. § 1.57(g); *see also* 35 U.S.C. § 132(a).

That is precisely what Sonos did. Before 2019, the zone-scene specification incorporated by reference the 2006 provisional and 2007 non-provisional applications, making them “effectively part of the” specification as though “explicitly contained therein.” *Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1282 (Fed. Cir. 2000). Then, in 2019, Sonos formally amended the zone-scene specification to bring certain parts of the 2006 provisional—including that one sentence—into the four corners of the document.

Sonos accurately represented to the examiner that all the inserted material “was previously incorporated by reference in this application, and the amendment contains no new matter.” Appx8701. The examiner had to independently verify that fact before approving the amendment. *See* Appx23023; Appx31846. The examiner’s approval is “entitled to an especially weighty presumption of correctness” in addition to the clear-and-convincing burden that already applies to any validity challenge. *Commonwealth*, 542 F.3d at 1380; *see supra* 50. The district court did not even acknowledge these heightened standards.

As Sonos explained to the examiner, the inserted sentence could “be found at least at pp. ... 17 of Appendix A” to the 2006 provisional application. Appx8724; Appx8736. That was true. Here is page 17 of Appendix A with the key sentence highlighted in blue:



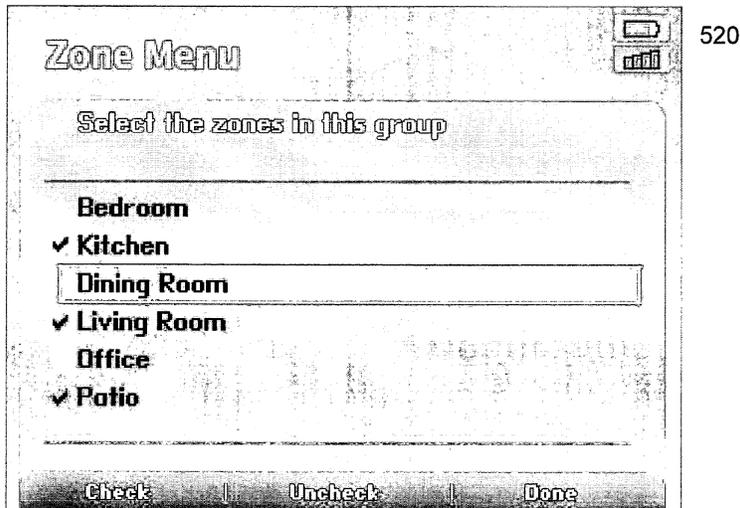
- The list of zones in the screen above includes ALL the zones in the system, including the Zones that are already grouped.

Appx8275. Compare that sentence with the one sentence Sonos added by amendment in 2019, shown in context, highlighted in blue:

[0062] FIG. 5B shows another user interface 520 to allow a user to form a scene. The user interface 520 that may be displayed on a controller or a computing device, lists available zones in a system. The list of zones in the user interface 520 includes ALL the zones in the system, including the zones that are already grouped. A checkbox is provide next to each of the zones so that a user may check in the zones to be associated with the scene.

Appx8711. The only difference between the two sentences appears in the following redline: “The list of zones in the ~~screen above~~ *user interface 520* includes ALL the zones in the system, including the zones that are already grouped.” That trivial change in wording had no substantive effect. It was merely a function of moving the image to the “Figures” section, where it became Figure 5B, which required referents (like “user interface 520”).

The court concluded that the 2019 amendment changed the meaning of the “ALL the zones” sentence because of its placement: Specifically, the court said it made a difference that Figure 5B (which appeared in the same form since the 2007 non-provisional) was “a truncated version” of the images in the 2006 provisional. Appx97. As shown above, the provisional displayed two images arranged vertically. But Figure 5B showed only the bottom half:



**FIG. 5B**

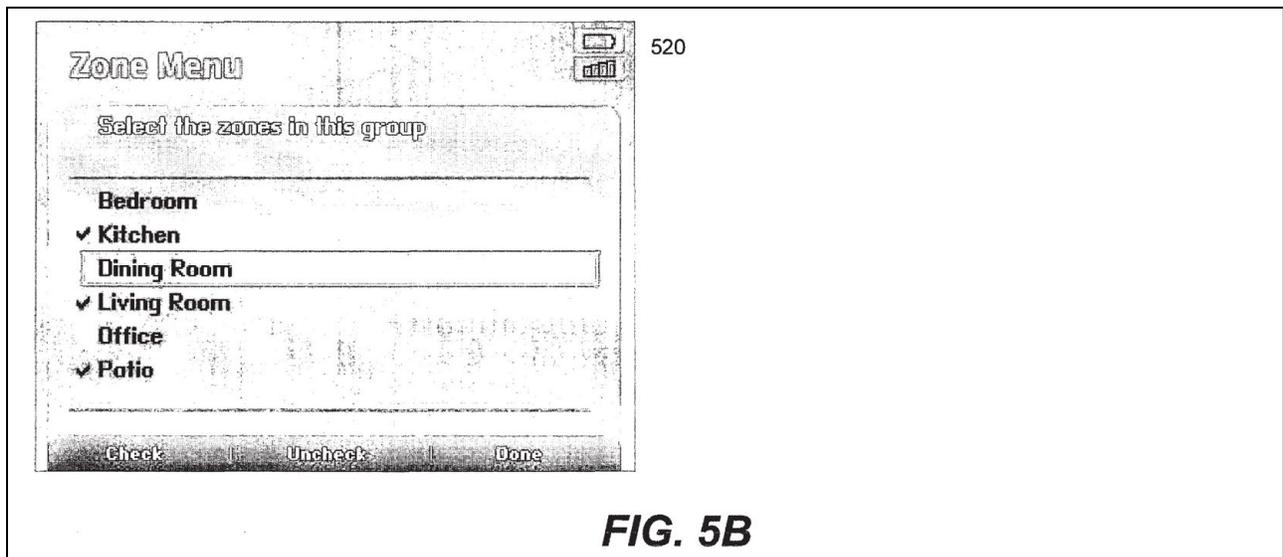
*E.g.*, Appx2086. The district court held that depicting the two images together in the provisional illustrated a user interface that allowed for the creation of a dynamic, ad-hoc group of zone players, which is destroyed when the players are grouped differently or one of the players is used for individual playback. *See* Appx97-98. The court insisted (and improperly found as fact) that the two images together “had *nothing to do with zone scenes.*” Appx98. In contrast, the court found that Sonos “reappropriated” the “ALL the zones” sentence to “refer to zone scenes” by presenting it with only Figure 5B in the amendment. Appx98.

The court was wrong about both what the 2006 provisional showed and the effect of isolating the bottom image. As to the 2006 provisional, the appendix that includes the contested image is titled

“Sonos UI [User Interface] Specification: *Zone Scenes*.” Appx8275 (emphasis added). The court’s only basis for ignoring the title was that the image looks like the handheld controller for creating dynamic groups in Sonos’s 2005 system, and the appendix says elsewhere that “it [is] ‘not expected that the Zone Scenes should be set up using the Handheld Controller.’” Appx98 (quoting Appx8267). The court’s logic was wrong at every level. First, that sentence about what was “expected” appears nearly 10 pages earlier in a different subsection of the appendix. *Compare* Appx8267 (sentence in section 3) *with* Appx8275 (image in section 4). Second, just because it was “not expected that the Zone Scenes should be set up using the Handheld Controller” does not preclude embodiments where zone scenes are created that way. At a minimum, all these inferences are jury questions of how a skilled artisan would understand the provisional.

As to the purportedly truncated image, the district court erred in fixating on the 2006 provisional. The 2007 non-provisional application plainly supplies all the information that the district court found missing in 2006: It presented Figure 5B *in the exact same* (purportedly “truncated”) *form* as the zone-scene specification, and without any

ambiguity at all. And it explicitly described the figure, twice, as a user interface “to allow a user to form a [zone] scene” with a handheld controller—not as an interface for dynamically grouping zone players ad hoc:



**FIG. 5B**

“Brief Description of the Drawings”

[0025] FIG. 5B shows another user interface **520** to allow a user to form a scene;

“Detailed Description of the Preferred Embodiments”

[0060] FIG. 5B shows another user interface **520** to allow a user to form a scene. The user interface **520** that may be displayed on a controller or a computing device, lists available zones in a system. A checkbox is provide next to each of the zones so that a user may check in the zones to be associated with the scene.

Appx8363; Appx8336; Appx8348.

In short, the 2007 non-provisional application long ago disclosed that Figure 5B reflected zone scenes, not dynamic zone grouping. Each subsequent application in the patent family, including those for the '885 and '966 patents, incorporated the 2007 non-provisional by reference and included the disclosures above. Thus, the 2019 amendment did not change the meaning of this figure.

All of this preexisting support for overlapping zone scenes refutes the court's narrative that Sonos had to sneak in the "ALL the zones" sentence to shore up an otherwise inadequate written description. It thus reinforces the point, already evident from the prosecution history, that Sonos had no such motive. As noted above (at 59), Sonos filed claims to overlapping zone scenes *before* Sonos offered the amendment to the specification. Appx8682-8706; Appx8708-8729. The examiner was required to assess written-description support for overlapping zone scenes, *see* U.S. Patent & Trademark Office, Manual of Patent Examining Procedure § 2163 (9th ed. 2023), and found no inadequacy on that dimension. Appx27573-27583; Appx31521-31532 (obviousness rejections). In response to the obviousness rejection, Sonos amended its claims and distinguished the prior art. Simultaneously, Sonos

requested that the “ALL the zones” sentence be moved from the provisional into the specification itself. Appx8685-8686; Appx8701; Appx8711-8712; Appx8724. Since the examiner had already blessed the written description, Sonos had no reason to “strategically and deceptively add[] to the specification,” as the district court found. Appx99.

Why, then, did Sonos amend the specification? Sonos did so to conform the '885 and '966 specification with that of a parallel pending application in the same family (eventually yielding U.S. Patent No. 10,897,679), which had a different claim scope and for which Sonos had already amended the specification in the same way. *See* Appx8196-8199; Appx8232-8233; Appx8734-8736 ('679 application amendment). Sonos was following its general practice of maintaining maximum uniformity across specifications of co-pending applications within the same patent family. *See* Appx21194; Appx8663-8664 (Sonos contemporaneously making the same amendment to the specification of another pending application). This common strategy minimizes the human error that can arise when the specifications from the prior

generation of applications differ. There was nothing “deceptive[]” about this routine step in Sonos’s global prosecution practice.

If the court had properly applied the law, it would have reached the only possible conclusion: Google failed to overcome the “especially weighty presumption of correctness” that applies to an approved amendment, *Commonwealth*, 542 F.3d at 1380, and failed to prove invalidity by clear and convincing evidence, *Rivera*, 857 F.3d at 1319. At a minimum, it was improper for the court to draw factual inferences against Sonos.

**C. This Court should reverse outright, or at a minimum order a limited retrial based on a full evidentiary record.**

Reversal is required if this Court is persuaded that no reasonable factfinder could conclude that the priority date was later than 2007. But even if the Court concludes that Sonos merely created a dispute of fact as to these issues, reversal is still required. In fact, this Court may reverse on procedural grounds without even plodding through the written-description and priority-date issues, because the court violated at least two rules that are meant to ensure orderly and fair proceedings. These procedural errors, by themselves, require outright reversal.

In certain circumstances, a court is free to inject issues that no party has raised. But a court cannot inject an ultimately dispositive issue partway through trial *without* affording the parties an opportunity to develop and present evidence bearing on that issue. Rule 50(a)(1) protects litigants from precisely this kind of ambush. It prohibits the grant of JMOL against a party who has not “been fully heard on [the] issue during a jury trial.” Sonos was *not* fully heard on the written-description and priority-date issues; Sonos never had notice that the court would inject these issues midway through trial, let alone resolve them as a matter of law based on an undeveloped record. Had Sonos been on notice, it would have presented expert testimony showing, for example, how “one of skill in the art would understand” the prosecution history. *Commonwealth*, 542 F.3d at 1382; *see* Appx8227; Appx10518 (describing expert opinions and reports needed to defend against priority challenge).

Separately, under Rule 50, the district court did not have authority to enter JMOL on these issues. Even after the court alerted Google to its concerns—and ordered multiple rounds of briefing on them during the trial, *see supra* 19 n.3—Google never moved for JMOL under

Rules 50(a) and 50(b) on anticipation, priority date, or written description. Appx9727-9762; Appx9763-9785; Appx11099-11135. That constituted a complete forfeiture that not even the court could cure. *See Ortiz v. Jordan*, 562 U.S. 180, 189 (2011). “For the same reasons a party may not seek a JNOV [now JMOL] on grounds not alleged in their motion for directed verdict, a district court may not enter a JNOV on grounds not asserted in a party’s motion for directed verdict.” *Murphy v. City of Long Beach*, 914 F.2d 183, 186 (9th Cir. 1990); *see Santos-Arrieta v. Hosp. Del Maestro*, 14 F.4th 1, 9 (1st Cir. 2021) (collecting cases from multiple circuits holding the same).

Now is too late to fix these errors. Google failed to present these issues to the jury and thus forfeited them. Google failed to pursue the priority-date issue despite many opportunities, including: when its expert expressly noted the material added via the 2019 amendment, Appx10985; when it alleged “new matter” at the showdown without identifying any new matter, Appx4913-4914; when it offered no jury instructions on the priority date, Appx7000-7024; and when it sought JMOL only on other grounds, *supra* 69. Had the district court never raised the issue, Google would obviously not be entitled to a new trial

based on a defense that it first thought up during trial and never pressed until after an unfavorable verdict. The ordinary rules do not change just because the district court raised the issue on Google's behalf.

If, notwithstanding these fatal errors, this Court is inclined to let the parties address the disputed facts, and even if it believes that the district court's ruling is justified on the present record, it should remand for a retrial limited to the issues of priority date and written description. Sonos is entitled to an opportunity to develop relevant evidence and try the issues to a jury. If the jury reaches a verdict in Sonos's favor on those limited issues, the original verdict should be reinstated.

### **III. The District Court Improperly Resolved Disputed Facts In Invalidating The '615 And '033 Patents.**

The district court followed the same pattern of usurping the jury's role when it invalidated the direct-control patents at summary judgment. Google argued that the asserted claims of the direct-control patents were obvious based on the combination of two prior art references: YouTube Remote and Google's '998 patent. The parties' experts offered dueling opinions on the validity of the direct-control

patents. Instead of presenting those issues to the jury, the court anointed itself fact-finder and resolved disputes in Google’s favor. This Court should vacate the judgments of invalidity so Sonos can try its case to a jury.

**A. The district court improperly resolved a factual dispute over whether the prior art discloses a “device-picker.”**

Both direct-control patents require what the parties call a “device-picker”: the ability to select a particular device from among the speakers connected to the smartphone and to transfer playback to that speaker. Claim 13 of the ’615 patent describes the device-picker as allowing “a selection of the particular playback device from the identified playback devices connected to the local area network.” Appx291 19:61-67. Claim 1 of the ’033 patent requires “displaying a representation of one or more playback devices” and “receiving user input indicating a selection of at least one given playback device from the one or more playback devices.” Appx322 17:43-52. Each claim further specifies that after the user makes her selection, playback transfers to the selected speaker(s).

No prior-art version of YouTube Remote contained a device-picker. The district court held, however, that “it would have been obvious to combine the YouTube Remote app system with disclosures in [the ’998 patent] to allow the selection of individual devices.” Appx14-17; Appx35-37. But the ’998 patent’s purported disclosure of a device-picker is ambiguous, so the district court improperly resolved a factual dispute over the scope of the prior art that should have gone to the jury.

The claims detail the computer-processing steps that allow the device-picker to display multiple available playback devices, receive a selection from a user of a particular playback device or devices from any that are available, and transfer playback to the selected device(s).

*Supra* 72. Google pointed to a single paragraph in the ’998 patent as disclosing all of this functionality. Appx4881-4882; Appx6337-6338. In full, Google’s paragraph says:

A user may use the remote control application of remote control 75, for example, to initiate contact with a server, such as server 24, for pairing remote control 75 to one or more controlled devices, such as controlled device 18 shown in FIG. 1. In some examples, the user may also utilize the remote control application of remote control 75 to *select one or more previously paired* controlled devices, and to send control messages to one or more paired controlled devices. For example, the user may interact with user interface 84

and/or display 88 to interact with and control any available controlled devices.

Appx34478-34479 10:62-11:6 (emphasis added).

Sonos argued that this passage “does not teach the selection of a particular ‘controlled device’ to transfer playback to.” Appx5085 (emphasis omitted). Instead, it “refer[s] to the ability to control any and all ‘controlled devices’ that have been ‘previously paired’ with a ‘remote control’ in a session, with no ability to choose from among[] those ‘controlled devices.’” Appx5085. In support, Sonos’s expert, Dr. Douglas Schmidt, testified that the passage is “ambiguous” and “not clear” as to whether it teaches the selection of a particular paired device from among multiple devices. Appx5149-5151. And even the ’998 patent’s inventor could not offer an opinion on what the passage discloses. Appx5190.

The district court recognized during the showdown hearing that it is unclear whether the paragraph discloses: (a) the ability to select a particular device from a set; or (b) only the ability to select any and all paired devices, no matter how many happen to be paired at the time. As the district court noted: “Now, that’s ambiguous.” Appx5317. “It says ‘select,’ but it doesn’t say select between the two.” Appx5320; *see*

Appx5318-5320. Google also conceded that the '998 patent does not mention any embodiments where the user selects or plays to only one device from a set of multiple paired devices. Appx5319.

Nonetheless, the district court found that the '998 patent “disclosed that a ‘user interface’ of a ‘remote control’ (*e.g.*, a smart phone) can display ‘previously paired controlled devices’ (*e.g.*, a television) so that a user may select and control ‘one or more paired controlled devices.’” Appx16. But aside from repeating the ambiguous phrase “one or more,” the court did not explain its finding. Instead, it called Dr. Schmidt’s interpretation “contorted” and declared: “The most straightforward reading of the passage is that it disclosed the ability to ‘select one or more’ devices among the ‘previously-paired devices.’” Appx16.

“Among” is the key word there, and it appears nowhere in the relevant part of the '998 patent. More importantly, it was inappropriate for the district court to decide which of two possible readings is “most straightforward.” Where dueling experts offered conflicting opinions on whether the '998 patent discloses the claimed device-picker, a reasonable jury could find that it does not. “[W]hat a reference teaches”

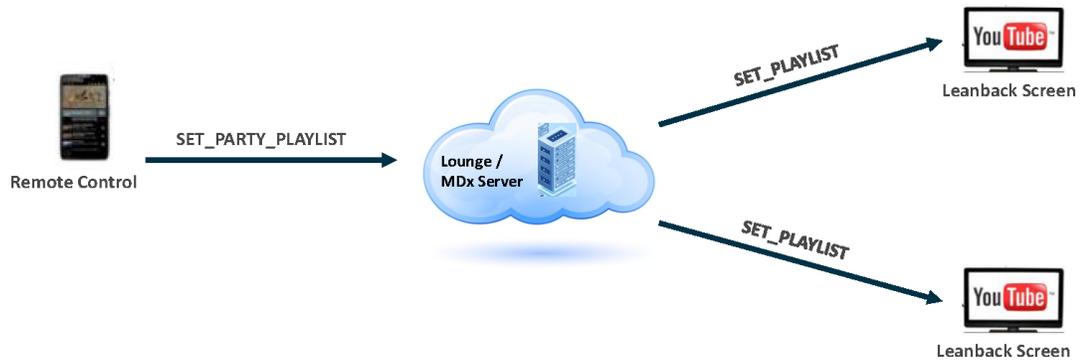
is a “question for the finder of fact,” so the court “improperly usurped the role of the jury” in choosing Google’s reading over Sonos’s. *Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1221 (Fed. Cir. 2003); *see also TriMed, Inc. v. Stryker Corp.*, 608 F.3d 1333, 1340-41 (Fed. Cir. 2010).

**B. The district court improperly resolved a factual dispute over whether the playlist stored on a server in the prior art is a “remote playback queue.”**

The ’033 patent’s asserted claims require “playback of a remote playback *queue provided by a cloud-based computing system* associated with a cloud-based media service.” *E.g.*, Appx322 17:39-42 (emphasis added). The invention proceeds in steps: (1) content is queued for playback; (2) a computing device (such as a phone) can handle playback of the remote queue at first; and (3) then the phone can transfer playback of the queue to a playback device (such as a smart speaker). Appx322 17:66-18:2. The district court construed “remote playback queue” as “a list of multimedia content selected for playback that is not local to the claimed computing device or playback device.” Appx26. And it held that YouTube Remote’s “party mode” functionality disclosed playback from such a queue because a cloud server “stored the list of

identifiers for the queue of videos selected for playback.” Appx30. But here, again, Sonos raised a factual dispute with testimony that party mode never involved playback from the cloud server; the cloud server merely stored a *copy* of the playlist, but a playback device or “screen” played only from its *local* playback queue. See Appx6425-6429.

Sonos’s expert explained that in party mode a “host [phone]” “sen[t] a copy of its entire local playback queue” in a “Set\_Party\_Playlist” message to the Lounge Server (Google’s name for the cloud server), which then sent a “Set\_Playlist” message containing a copy of the playlist to any paired screen. Appx6463-6464. This Set\_Playlist message contained videoIDs for the videos in the playlist. See Appx6458; Appx6464-6465. Each screen “save[d] a copy of the entire playlist into its local playback queue” and used that local queue “to playback the media items sent from the” phone. Appx6459; Appx6465.



Appx6862.

In this arrangement, the Lounge Server had only a copy of the party playlist, and the screens never “play[ed] back” any items from that copy. Appx322 17:64-65. Instead, they played back from their own local queues. By way of proof, Sonos’s expert explained that when a video ended, the screens automatically moved to the next video in the local queue instead of receiving more information from the Lounge Server about what to play next. Appx6465. Moreover, if the Lounge Server went offline, each screen continued playing from its local queue until it cycled through every item. Appx6465-6466.

Party mode thus did not involve playback of a “remote playback queue.” Even Google’s expert described this arrangement as using a local playback queue because “the playback device ... stores a list of videoIDs for the playlist and is thus capable of playing back the playlist

even if the [Lounge] server were not available.” Appx4718. He took that position for YouTube Remote’s non-party mode, Appx4717-4718, but his description of playback of a local queue applies equally to party mode.

The district court itself followed this exact logic in connection with the ’615 patent. The ’615 patent requires a *local* playback queue rather than a remote one, and the court invalidated the ’615 patent’s claim 13 as obvious partly because non-party mode played from a *local* playback queue (and because of the device-picker issue). Appx21; Appx11-17.

On the ’033 patent and party mode, the district court acknowledged that screens in party mode “all had and relied on their own local playback queues.” Appx29. But it disregarded Sonos’s expert’s opinion that screens in party mode never played content from the Lounge Server, as would be required to invalidate the ’033 patent. See Appx29-31. And it did not explain how it could conclude that party mode differed enough from non-party mode to warrant a finding of invalidity as a matter of law.

At bottom, the district court improperly resolved a factual dispute over whether the Lounge Server’s copy of the playlist was merely a

coordinating list that served to sync the local queue on a phone with the local queue on the screens, or whether the screens played from that list instead of their local queues. *See TriMed*, 608 F.3d at 1340-41.

## CONCLUSION

This Court should reverse or vacate the judgment below and remand for further proceedings, including deciding the merits of the post-trial motions previously denied as moot.

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## ADDENDUM

Order Granting Motion for Partial Summary Judgment as to '615 Patent, Dkt. No. 316, filed August 2, 2022 .....	Appx1
Order re Motions for Summary Judgment, Dkt. No. 566, filed April 13, 2023.....	Appx18
Order re Prosecution Laches and Post-Trial Motions, Dkt. No. 868, filed October 6, 2023 .....	Appx51
Final Judgment, Dkt. No. 869, filed October 10, 2023 .....	Appx106
Amended Final Judgment, Dkt. No. 880, filed November 14, 2023 .....	Appx107
U.S. Patent No. 9,967,615.....	Appx265
U.S. Patent No. 10,779,033.....	Appx295
U.S. Patent No. 10,469,966.....	Appx346
U.S. Patent No. 10,848,885.....	Appx2051