IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

SONOS, INC.,	§	
	§	
Plaintiff,	§	C.A. 6:20-cv-881
v.	§	
	§	JURY TRIAL DEMANDED
GOOGLE LLC,	§	
	§	
Defendant.	§	

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Sonos, Inc. ("Sonos" or "Plaintiff") hereby asserts claims for infringement of United States Patent Nos. 9,967,615; 10,779,033; 9,344,206; 10,469,966; and 9,219,460 (the "patents-in-suit"; attached hereto as Exhibits 1-5 respectively) against Defendant Google LLC ("Google" or "Defendant"), and alleges as follows:

INTRODUCTION

1. Sonos is an American success story. It was founded in 2002 in Santa Barbara, California by a handful of engineers and entrepreneurs with a vision to invent the world's first wireless, whole-home audio system. At the time, popular audio systems were dependent on a centralized receiver hard-wired to each individual passive speaker throughout a home. Further, most homes with Internet access had dial-up connections, the iPhone was still five years away, and there were no streaming music services. The technological barriers confronting Sonos were enormous.

2. To deliver on its vision, the Sonos team completely reimagined the in-home music system as a decentralized network of smart playback devices, and it developed a platform that could seamlessly and wirelessly distribute audio room by room or throughout the home at the user's discretion. Sonos created a "choose what to play, where to play it, and how loud" wireless audio system that could not only perform without lag (*e.g.* buffering, or network interruptions), but that was also so simple and intuitive that customers would make it part of their daily lives.

GOOGLE EXHIBIT 1029
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IPR2025-01590

3. Commercial success did not come easy for Sonos as its vision was in many ways ahead of its time. But year by year, consumers – and the entire industry – came to appreciate that wireless multi-room audio devices and systems could not only work, but could become an essential part of the listening experience. Success required staying true to Sonos's disruptive vision, continuing to innovate while adjacent industries caught up and customers became more and more enamored with the idea of Sonos as they had the chance to encounter and use its products. Once Sonos had taken all the risks and placed enormous bets on research and development, the "first followers" began to copy Sonos's innovations.

4. To this day, Sonos remains focused on innovations that further enhance the listening experience. Sonos invests heavily in research and development and, as a result, frequently invents new systems with new technologies, enhanced functionality, improved sound quality, and an enriched user experience.

5. As a result, Sonos has become one of the world's leading providers of innovative audio products. In recognition of its wide-ranging innovations, the U.S. Patent & Trademark Office has granted or allowed Sonos more than 940 U.S. patents, including the patents-in-suit, with hundreds more patents in other countries. The innovations captured by these patents cover many important aspects of wireless multi-room audio devices/systems, including, for example, how to manage and control groups of playback devices, how to facilitate seamless control and transfer of audio playback among devices, and how to output amazing sound quality.

6. The industry has recognized the importance of Sonos's patents. For example, Sonos earned a spot on the IPO list of "Top 300 Organizations Granted U.S. Patents" and the IEEE recognized Sonos as having one of "[t]he technology world's most valuable patent portfolios." *See* Exs. 6 and 7.

7. Sonos launched its first commercial products in 2005 and has since released a wide variety of critically acclaimed, patented, wireless multi-room audio products, including, for example, the Play:1, Play:3, Play:5 (Gen 1 and Gen 2), One (Gen 1 and Gen 2), One SL, Move,

Playbar, Playbase, Beam, Sub, Connect, Port, Connect:Amp, Amp, Five, and Arc. *See, e.g.*, Ex. 8. Sonos's products can be set up and controlled by the Sonos app. *Id.*

8. Sonos's efforts have made it incredibly popular with its customers. Sonos estimates that in fiscal year 2019, Sonos's customers listened to 7.7 billion hours of audio content using its products. And, as of September, 2019, almost two thirds of Sonos households had purchased and installed more than one Sonos product.

9. Sonos's record of innovation has made it the undisputed leader in what has come to be called the "multiroom audio" field. *See, e.g.*, Ex. 9 (2018 Digital Trends: "Sonos is the king of multiroom audio…."); Ex. 10 (2019 What Hi-Fi: "[N]o multi-room offering is as complete or as pleasurable to live with as Sonos.").

10. Sonos has already sued Google for infringing patents on its first group of inventions involving the set-up, control, playback, and synchronization of wireless playback devices. This case involves a second group of inventions which, as described more extensively below, tackle the novel technological challenges of how to stream music from a cloud-based service, how to create, manage, and invoke "zone scenes" to configure how multiple playback devices work together, and how to dynamically adjust the equalization of a playback device based on the environment in which the playback device is operating.

GOOGLE BEGINS INFRINGING

11. Almost a decade after Sonos created the smart-speaker market, Google entered the space. Initially, Google sought to work with Sonos and, through those efforts, gained access to Sonos's engineers, products, and technology. All too quickly, however, Google shifted focus and began to develop and sell products that copied Sonos's technology and infringed Sonos's patents.

12. Part of what makes Sonos so successful is that, through its application, Sonos is compatible with many different third-party music streaming services. When Google publicly launched its own streaming music service – Google Play Music – in late 2011, Sonos worked with

Google to integrate the Google Play Music service into the Sonos ecosystem. As a result, Google Play Music launched on the Sonos platform in 2014. *See, e.g.*, Ex. 11.

13. This should have benefited everyone: Sonos's customers gained access to another streaming service and Google Play Music users gained access to Sonos's devices. But as the press recognized at the time, Sonos's integration work with Google was especially "deep" and therefore gave Google a wide aperture through which to view Sonos's proprietary technology. *Id.* (2014 Wired: "This is the first time this sort of deep integration has happened between a third party music service and Sonos."). The copying soon followed.

14. Just eighteen months later, in 2015, Google began willfully infringing Sonos's patents. On information and belief, Google used the knowledge it had gleaned from Sonos to build and launch its first wireless multi-room audio product – Chromecast Audio.

15. Google's Chromecast Audio began what has turned into Google's relentless effort to copy Sonos and use Sonos's patented technology. For example, although Google's original Chromecast Audio did not yet include Sonos's patented multi-room audio functionality, even when it was launched Google was working to add that Sonos-patented feature. *See* Ex. 12 (2015 The Guardian: "Google is also working on multi-room audio streaming using the Chromecast Audio, but it will not support the popular feature out of the box."). And, when Google added the infringing feature, the press immediately noted how this "major feature update" made Google's product even more "like the ones made by Sonos:"

> Google's recently-launched Chromecast Audio adapter is getting a major feature update this week: Consumers will now be able to group multiple Chromecast audio adapters to stream their favorite music simultaneously in more than one room, similar to the multi-room support available for internet-connected loudspeakers like the ones made by Sonos.

Ex. 13 (2015 *Variety* article entitled "Google's Chromecast Audio Adapter Gets Multi-Room Support Similar to Sonos"); *see also* Ex. 14 (2015 *Pocket-Lint*) ("You control your Sonos experience with one app. Well, thanks to a new software rollout, Chromecast Audio can pretty much do the same thing.").

16. This has become a consistent pattern. Time and again, Google has added features to its products that first appeared in Sonos's products and which make use of Sonos's patented technology.

GOOGLE'S INFRINGEMENT ACCELERATES

17. Since 2015, Google's misappropriation of Sonos's patented technology has proliferated. Google has expanded its wireless multi-room audio system to more than a dozen infringing products, including the Google Home Mini, Google Home, Google Home Max, and Pixel phones, tablets, and laptops. And Google has persisted in infringing even though Sonos has warned Google of its infringement on at least four separate occasions dating back to 2016.

18. For example, in 2016 (a year after Google launched the Chromecast Audio wireless adapter), Google released the Google Home multi-room audio player (which was controlled by Google's rebranded multi-room controller app – the Google Home app). Unlike the Chromecast Audio, the Google Home added an internal speaker driver making it an "all-in-one" audio player akin to Sonos's prior Play:1, Play:3, and Play:5 products.

19. Sonos raised the issue of infringement as to these products with Google as early as August 2016. Sonos hoped that Google would respect Sonos's intellectual property and the extensive work Sonos had put into inventing and developing its products. But Google did no such thing.

20. In October 2016, Sonos put Google on notice of infringement of 28 Sonos patents, including asserted United States Patent No. 9,344,206. Google, however, did not stop infringing. Instead, it doubled down and introduced new infringing products, making use of *even more* patented technology from Sonos.

21. For example, in 2017, eight years after Sonos introduced its first all-in-one audio player – the Play:5 – Google released its first all-in-one audio players – the Google Home Max and the Google Home Mini. Google's Home Max in particular was seen as a "Sonos Clone" and a "not-so-subtle copy of the [Sonos] Play:5 speaker…." Ex. 15. As explained by Gizmodo, "[i]t's

also hard not to see the [Google Home Max] device as something of a jab at Sonos." *Id.*; *see also, e.g.*, Ex. 16 (2017 Android Central: "You can't help but look at Google Home Max… and come to the conclusion that Google is sticking its nose where Sonos has been for years.").

22. Therefore, in January 2018, and then again in July 2018, Sonos put Google on notice that it was infringing even more Sonos patents, including asserted United States Patent No. 9,219,460. Then again, in February 2019, Sonos put Google on notice of infringement of 100 Sonos patents, including asserted United States Patent No. 9,967,615.

23. Nothing Sonos did, however, deterred Google from expanding its infringement. Google's infringing product line now includes at least the Chromecast, Chromecast Ultra, Chromecast Audio, Chromecast with Google TV, Home Mini, Nest Mini, Home, Home Max, Home Hub, Nest Hub, Nest Hub Max, Nest Audio, and Nest Wifi Point (individually or collectively, "Google Audio Player(s)"), all of which can be controlled by, for example, the YouTube Music app, the Google Play Music app, the YouTube app, and the Google Home app (individually or collectively, "Google App(s)"). *See, e.g.*, Exs. 17-27.

24. In addition to providing the Google Apps for controlling the Google Audio Players, Google also offers various infringing hardware controllers that are pre-installed with the Google Play Music app, YouTube app, and/or YouTube Music app (and capable of downloading and executing the Google Apps that are not pre-installed). These infringing hardware controllers include, for example, Google's "Pixel" phones, tablets, and laptops (e.g., the Pixel 3, Pixel 3 XL, Pixel 3a, Pixel 3a XL, Pixel 4, Pixel 4 XL, and Pixel 4a phones, the Pixel Slate tablet, and the Pixelbook and Pixelbook Go laptops) (individually or collectively, "Google Pixel Device(s)"). *See, e.g.*, Exs. 28-32.

25. Herein, "Google Wireless Audio System" refers to one or more Google Audio Players, one or more Google Pixel Devices, and/or one or more Google Apps.

26. In order to hold Google accountable for its willful infringement of Sonos's patents, Sonos filed a complaint in January 2020 asking the United States International Trade Commission ("ITC") to institute an investigation into Google's unlawful importation into and sale

in the United States of infringing products. The ITC instituted an investigation, *In re Certain Audio Players and Controllers, Components Thereof, and Products Containing Same*, Inv. No. 337-TA-1191 to determine whether Google's audio players and controllers infringe five Sonos patents directed to fundamental features such as playing music on multiple speakers in synchrony, playing music in stereo over two or more players, a controller that can easily setup a player on a wireless network, and playback-control features such as controlling both the volume of individual speakers and a group of speakers.

27. While the ITC Investigation has been pending, Google has continued to increase its infringement. For example, press reports indicate that Google is introducing new products and changes that mean Google is "one step closer to replacing your Sonos system." Ex. 33; *see also* Ex. 44 ("The new functionality appears to be the most direct challenge to the likes of Sonos, which has enjoyed enormous success by creating a series of connected speakers and soundbars that can play music simultaneously – or individually."). The press has similarly noted that Google's new speaker "could be a new rival for the likes of the Sonos One, the best smart speaker you can buy in 2020." Ex. 34; *see also* Ex. 44 ("Just like Sonos, you can also change the volume on each speaker individually from the main interface."). And press reports indicate that Google has expanded its use of Sonos's stereo pair technology into the new smart-speakers even though Google is *currently* being sued for infringing a Sonos patent on this technology. Exs. 35, 44.

28. Google itself has also highlighted the importance of its use of Sonos's technology. For example, Google' Chris Chan publicly stated that "[c]ontrolling the audio throughout my home, no matter who's listening, has been incredibly helpful" and that "[t]oday, we're expanding that control. You can already manually group Nest devices in order to play the same music on various speakers at the same time, and now we're launching multi-room control so you can dynamically group multiple cast-enabled Nest devices (speakers, Smart Displays, Chromecasts) in real-time to fill multiple rooms with music." Ex. 35; *see also* Ex. 44. Again, Google has expanded its use of this technology *while* it is being sued for infringing Sonos's patents on this precise technology.

29. Google's aggressive and deliberate expansion of its use of Sonos's patented technology has led observers to conclude that "[n]o market is safe from [the] search engine monster" and that Google was specifically "offering new products to compete with Sonos in the music streaming market." *See* Ex. 36.

GOOGLE'S CONTINUED INFRINGEMENT FORCES THIS SUIT

30. In the face of Google's unrelenting infringement, Sonos has no choice but to bring this suit. In this action, Sonos asserts patents that are not at issue in the ITC or the related district court action. Sonos is also accusing Google's Wireless Audio System of infringing different patented features than are at issue in either of those actions.

31. Sonos's ITC suit addressed Google's infringement of Sonos patents covering fundamental aspects of wireless, whole-home audio systems. While groundbreaking, those patents represent only some of Sonos's ongoing innovation from its inception to today. Through its foresight, substantial investment, and relentless pursuit of excellence, Sonos built on its previous success and invented a number of key features consumer have grown to expect and demand in streaming music listening.

32. For example, as explained more fully below, Sonos's U.S. Patent Nos. 9,967,615 and 10,779,033 (the "'615 Patent" and the "'033 Patent," respectively) cover key aspects of Sonos's inventive approach for streaming music from a cloud-based service to a media playback system, including technology for transferring playback responsibility for a cloud-based stream of media content from a user's device, such as a smart phone, to a media playback system that is then configured to retrieve and play back the cloud-based media content.

33. Sonos was well ahead of the field when it began to develop these inventions in 2011. At that time, Sonos's audio system, including its smart-phone app controller, was in a category all its own. Moreover, streaming content from cloud-based media services for playback by computers – let alone other types of networked devices like smart phones and smart speakers – was in its infancy. Nonetheless, at a time years before Google released its first Chromecast

product, Sonos envisioned a novel experience of continuous and intuitive control of a user's entire streaming listening experience, across multiple networked devices, including smart phones and/or smart speakers. That vision gave rise to the innovation of technology for enabling seamless transition of playback responsibility for cloud-based media content between different networked devices, such as a smart phone and a smart speaker. This paradigm is now fundamental across the entire streaming industry as user expectations of continuous listening experiences have continued to converge with Sonos's vision.

34. Similarly, Sonos's U.S. Patent Nos. 9,344,206 and 10,469,966 (the "'206 Patent" and the "'966 Patent," respectively) cover some of Sonos's inventions related to creating, managing, and invoking "zone scenes" to configure how multiple players work together. With these patents, Sonos once again anticipated what consumers would want and invented a new feature for its system. Using the inventions of the '206 and '966 Patents, playback devices can be grouped together for synchronous playback in an easy and intuitive manner using "zone scenes." Advantageously, such a "zone scene" can be accessed and invoked by multiple devices and in various ways (*e.g.*, by voice) even when the particular controller that created the "zone scene" is not on the network.

35. In addition, Sonos's U.S. Patent No. 9,219,460 (the "'460 Patent") covers a Sonos invention related to dynamically adjusting the equalization of a playback device based on its environment. Naturally, consumers want their speakers to sound great, regardless of the environment in which the playback device is operating, but changes in the playback device's listening environment could impact sound quality. For example, a playback device may be configured to perform advantageously in a small room, but nonetheless may come to be positioned outdoors. When operating outdoors, boosting the bass levels of the playback may result in an improved listening experience for some consumers. However, previous technology for setting the equalization parameters for a playback device made it very difficult to optimize the playback device's equalization parameters for its listening environment. The '460 Patent provides technology that enables a playback device to adjust its own equalization settings based on one or

more reflection characteristics of an audio signal in order to optimally match the playback device's listening environment.

36. Sonos provided a pre-filing copy of this Complaint to Google, thereby providing clear pre-suit notice of infringement of the patents-in-suit. Google, however, has never given any indication that it is willing to stop infringing, and did not do so in response to receiving a draft of this complaint.

37. On information and belief, Google is unwilling to stop infringing because its infringement of Sonos's patented inventions has paved the way for Google to generate billions of dollars in revenue. A December 2018 market report by Royal Bank of Canada ("RBC"), for example, concluded that Google sold over 40 million Google Home devices in the U.S. and that Google generated $3.4 billion in Google Home revenue in 2018 alone. Ex. 37 at pp. 1, 4, 14-15. RBC also found that, as of August 2017, Google had sold more than 55 million Chromecast devices and that Google generated almost $1 billion in Chromecast revenue in 2018. *Id*. at pp. 4, 16, 18. Further, RBC estimated that, in 2018, Google generated $3.4 billion in Pixel device revenue. *Id*. at pp. 4, 8.

38. By 2021, RBC estimates that Google will be annually selling over 100 million Google Home devices in the U.S. and generating over $8 billion in Google Home revenue. *Id*. at pp. 4, 14-15. In addition, by 2021, RBC estimates that Google will annually generate $2.4 billion in Chromecast revenue and nearly $7 billion in Pixel device revenue. *Id*. at pp. 4, 8, 18.

39. The revenue obtained from the sale of Google's hardware devices vastly understates the value to Google of infringing Sonos's patents. On information and belief, Google is intentionally selling the infringing products at a discount and/or as a "loss leader" with the expectation that this will allow Google to generate even more revenue in the future – *e.g.*, by powering Google's continued dominance of the market for search advertising. In particular, Google's infringement of Sonos's patented inventions has helped and/or will help Google generate significant revenue from the use of Google's hardware devices including advertising, data collection, and search via the Google Wireless Audio Systems. As the *New York Post*

explained, "Amazon and Google both discounted their home speakers so deeply over the holidays that they likely lost a few dollars per unit … hoping to lock in customers and profit from later sales of goods and data about buying habits." Ex. 38. Similarly, *News Without Borders* explained that companies like Google are using their "smart speaker" devices as "'loss leader[s]' to support advertising or e-commerce." Ex. 39.

40. On information and belief, Google's copying of Sonos's patented inventions has also helped and/or will help Google generate significant revenue from driving its users to make purchases such as streaming music subscriptions and retail purchases via the Google Wireless Audio Systems. For example, an NPR "smart speaker" survey found that 28% of survey respondents agreed that "[g]etting [a] Smart Speaker led [them] to pay for a music service subscription," and Google offers two such subscriptions – Google Play Music and YouTube Music. Ex. 40 at p. 20. Likewise, the NPR survey also found that 26% of respondents use their smart speakers "regularly" to "add [items] to shopping list." *Id*. at p. 14; *see also, e.g.*, Ex. 39 (stating that companies like Google are using their "smart speaker" devices as "'loss leader[s]' to support… e-commerce.").

41. On information and belief, Google is willfully infringing Sonos's patents as part of Google's calculated strategy to vacuum up invaluable consumer data from users and, thus, further entrench the Google platform among its users and fuel its dominant advertising and search platforms.

42. Google's infringement – and its strategy to sell its infringing products at a loss to develop alternative revenue streams – has caused significant damage to Sonos. For example, the Google Home Mini predatorily implemented Sonos's valuable patented technology into an all-in-one wireless multi-room product that Google sells at a highly subsidized price point or even gives away for free. Ex. 41 ("At $49, Google Home Mini works on its own or you can have a few around the house, giving you the power of Google anywhere in your home."); Ex. 39 ("Google partnered with Spotify to offer Home Minis as a free promotion for Spotify Premium customers.

Spotify's premium userbase is nearly 90 million, so if even a fraction of users take the free offer, a massive influx of Google smart speakers will enter the market.").

THE PARTIES

43. Plaintiff Sonos, Inc. is a Delaware corporation with its principal place of business at 614 Chapala Street, Santa Barbara, California 93101. Sonos is the owner of the patents-in-suit. Sonos holds all substantial rights, title and interest in and to the Asserted Patents.

44. Defendant Google LLC is a Delaware limited liability corporation with its principal place of business at 1600 Amphitheatre Parkway, Mountain View, CA 94043. Google maintains a physical address in this district at 500 West 2nd Street, Austin, Texas, 78701. Google may be served with process through its registered agent, the Corporation Service Company, at 211 East 7th Street, Suite 620, Austin Texas 78701. Google is registered to do business in the State of Texas and has been since at least November 17, 2006.

45. Google LLC is one of the largest technology companies in the world and conducts product development, engineering, sales, and online retail, search, and advertising operations in this District.

46. Google LLC directly and/or indirectly develops, designs, manufactures, distributes, markets, offers to sell, sells, and/or imports the infringing Google Wireless Audio System at issue in this litigation in/into the United States, including in the Western District of Texas, and otherwise purposefully directs infringing activities to this District in connection with its Google Wireless Audio System.

JURISDICTION AND VENUE

47. This action for patent infringement arises under the Patent Laws of the United States, 35 U.S.C. § 1 et. seq. This Court has original jurisdiction under 28 U.S.C. §§ 1331 and 1338.

48. This Court has personal jurisdiction over Google because, pursuant to Fed. R. Civ. P. 11(b)(3), Google has: (1) availed itself of the rights and benefits of the laws of the State of Texas, (2) transacted, conducted, and/or solicited business and engaged in a persistent course of

conduct in the State of Texas (and in this District), (3) derived substantial revenue from the sales and/or use of products, such as the infringing Google Wireless Audio System, in the State of Texas (and in this District), (4) purposefully directed activities (directly and/or through intermediaries), such as shipping, distributing, offering for sale, selling, and/or advertising its infringing Google Wireless Audio System, at residents of the State of Texas (and residents in this District), (5) delivered its infringing Google Wireless Audio System into the stream of commerce with the expectation that the Google Wireless Audio System will be used and/or purchased by consumers, and (6) committed acts of patent infringement in the State of Texas (and in this District).

49. This Court also has personal jurisdiction over Google because it is registered to do business in the State of Texas and has one or more regular and established places of business in the Western District of Texas.

50. Venue is proper in this District under the provisions of 28 U.S.C. § 1400(b) because, as noted above, Google has committed acts of infringement in this district and has one or more regular and established places of business in this district. Google has also repeatedly admitted that venue is proper in this District for various patent cases. *See e.g., Solas OLED Ltd. v. Google, Inc.* (WDTX Case No. 6-19-cv-00515) and *VideoShare, LLC v. Google LLC et al* (WDTX Case No. 6-19-cv-00663).

THE PATENTS-IN-SUIT

U.S. Patent No. 9,967,615

51. Sonos is the owner of U.S. Patent No. 9,967,615 (the "'615 Patent"), entitled "Networked Music Playback," which was duly and legally issued by the United States Patent and Trademark Office ("USPTO") on May 8, 2018. A copy of the '615 Patent, is attached hereto as Exhibit 1.

52. The '615 Patent relates generally to technology for facilitating transfer of playback responsibility from a user's device to a media playback system.

53. The ’615 Patent recognized that “[t]echnological advancements have increased the accessibility of music content, as well as other types of media….” ’615 Patent at 1:19-20. This allowed users to access audio and video content over the Internet. *Id.* at 1:21-26.

54. But, the ’615 Patent identified a particular problem and provided an unconventional technological solution. Specifically, the patent recognized that “[w]ired or wireless networks can be used to connect one or more multimedia playback devices for a home or other location playback network (*e.g.*, a home music system).” ’615 Patent at 1:66-2:2. This means that “[m]usic and/or other multimedia content can be shared among devices and/or groups of devices (also referred to herein as zones) associated with a playback network.” *Id.* at 2:6-9. The ’615 Patent is directed to a method, tangible media, and controller that “facilitate streaming or otherwise providing music from a music-playing application (*e.g.*, browser-based application, native music player, other multimedia application, and so on) to a multimedia content playback (*e.g.*, Sonos™) system.” *Id.* at 2:10-14.

55. The ’615 Patent provides an unconventional technological solution to this problem. For example, the ’615 Patent describes an “Example Controller” that “can be used to facilitate the control of multi-media applications….” ’615 Patent at 9:8-14. “In particular, the controller 500 is configured to facilitate a selection of a plurality of audio sources available on the network and enable control of one or more zone players … through a wireless network interface 508.” *Id.* at 9:14-18. Further, the ’615 Patent describes embodiments that “enable a user to stream music from a music-playing application (*e.g.*, browser-based application, native music player, other multimedia application and so on) to a local multimedia content playback (*e.g.*, Sonos™) system.” ’615 Patent at 12:8-12. More specifically, the ’615 Patent teaches that while “a user listens to a third party music application (*e.g.*, Pandora™ Rhapsody™, Spotify™, and so on)” on a user device, such as the user’s “smart phone,” the user can “select[] an option to continue playing [the current] channel on her household music playback system (*e.g.*, Sonos™),” which will cause the user’s “playback system” to “pick[] up from the same spot on the selected channel that was

on her phone and output[] that content (*e.g.*, that song) on speakers and/or other playback devices connected to the household playback system." *Id.* at 12:44-53; *see also id.* at 13:1-53.

56. The '615 Patent goes on to teach specific technology for facilitating this transfer of playback responsibility from the user's device to the user's playback system. For instance, the '615 Patent teaches that one aspect of this technology involves causing data for retrieving network-based media content (such as a uniform resource locator (URI)) to be passed to a playback device in the playback system so that the playback device can "run on its own to fetch the content" from a networked audio source, such as a "cloud" server that is accessible over the Internet. *Id.* at 12:53-63; *see also id.* at 12:63-67 (describing that "[a] third party application can open or utilize an application programming interface (API) to pass music to the household playback system without tight coupling to that household playback system"); 15:47-16:19 (describing a "throw it over the wall" approach in which "a third party application provides a multimedia playback device (*e.g.*, a Sonos™ zone player (ZP)) with enough information about content (*e.g.*, an audio track) so that . . . the local playback system (*e.g.*, SonosNet™) can directly access a source of the content and . . . play the content directly off the network *(e.g.*, the Internet) or cloud," where the "connection between the third-party application and the local playback device (*e.g.*, Sonos ZonePlayer™) can be direct over a local area network (LAN)" or "remote through a proxy server in the cloud"); 16:53-17:4 (describing various embodiments for "queue management" associated with the transfer of playback from a control device to a playback system, including an embodiment where a "shared queue is provided between the local playback system and the third party application to keep the local system and the application synchronized"). Further, the '615 Patent teaches that another aspect of this technology involves transitioning the user's device into a mode in which it functions to control the playback of the media content by the user's playback system after the transfer. *Id.* at 16:20-42, 17:5-20. In this way, the technology taught by the '615 Patent provides for intuitive and seamless transfer of playback responsibility from a user's device to a media playback system.

57. In line with these teachings, the ’615 Patent claims devices, computer-readable media, and methods for facilitating transfer of playback responsibility from a user’s device to a media playback system.

58. For example, claim 13 of the ’615 Patent recites a non-transitory computer readable storage medium including instructions for execution by a processor that, when executed, cause a control device to perform various functions that facilitate transfer of playback responsibility from the device to a media playback system. *See* ’615 Patent, claim 13. When the instructions are executed, the control device is initially operable to (i) cause a graphical interface to display a control interface including one or more transport controls to control playback by the control device, (ii) identify playback devices connected to a local area network, (iii) cause the graphical interface to display a selectable option for transferring playback from the control device, and (iv) detect a set of inputs to transfer playback from the control device to a particular playback device. *Id.* Additionally, the instructions configure the control device so that, after detecting the set of inputs to transfer playback from the control device to the particular playback device, the control device is operable to cause playback to be transferred from the control device to the particular playback device by (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. *Id.* Additionally yet, the instructions configure the control device so that the control device is operable to cause the particular playback device to play back the multimedia content, which involves 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. *Id.*

U.S. Patent No. 10,779,033

59. Sonos is the owner of U.S. Patent No. 10,779,033 (the "'033 Patent"), entitled "Systems And Methods For Networked Music Playback," which was duly and legally issued by the United States Patent and Trademark Office ("USPTO") on September 15, 2020. A copy of the '966 Patent, is attached hereto as Exhibit 2.

60. The '033 Patent is related to the '615 Patent in that they are both continuations of application No. 13/341,237, filed on December 30, 2011, now U.S. Patent No. 9,654,821. Thus, the '033 and '615 Patents share essentially the same specification. Sonos incorporates by reference and re-alleges paragraphs 52-58 of this Complaint as if fully set forth herein.

61. Like the '615 Patent, the '033 Patent claims devices, computer-readable media, and methods for facilitating transfer of playback responsibility from a user's device to a media playback system, which provide an unconventional solution to the technological problem described in the '615 Patent.

62. For example, claim 1 of the '033 Patent recites a computing device with specific hardware configurations, including a non-transitory computer-readable medium that stores program instruction that can be executed by the device's processor(s). *See* '033 Patent, claim 1. When the instructions are executed, the computing device can initially operate in a first mode in which it is configured for playback of a remote playback queue provided by a cloud-based computing system associated with a cloud-based media service. *Id.* In that mode, the computing device is operable to (i) display a representation of one or more playback devices in a media playback system that are communicatively coupled to the computing device over a data network and available to accept playback responsibility for the remote playback queue, and (ii) while displaying the representation of the one or more playback devices, receive user input indicating a selection of at least one given playback device from the one or more playback devices. *Id.* Additionally, the instructions configure the computing device so that, based on receiving the user input, the computing device is operable to transmit 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. *Id.* Additionally yet, the instructions configure the computing device so that the computing device is operable to detect 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 then after detecting the indication, transition from (a) the first mode in which the computing device is configured for playback of the remote playback queue to (b) 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. *Id.*

U.S. Patent No. 9,344,206

63. Sonos is the owner of U.S. Patent No. 9,344,206 (the "'206 Patent"), entitled "Method And Apparatus For Updating Zone Configurations In A Multi-Zone System," which was duly and legally issued by the United States Patent and Trademark Office ("USPTO") on May 17, 2016. A copy of the '206 Patent, is attached hereto as Exhibit 3.

64. The '206 Patent relates generally to consumer electronics and human-computer interaction and, more specifically, to controlling or manipulating a plurality of multimedia players in a multi-zone system. *See, e.g.*, '206 Patent at 1:25-29.

65. The '206 Patent recognized that users demand not only quality audio reproduction but also a system that allows multiple players to access music from different sources. '206 Patent at 1:30-40. Before the '206 Patent, a conventional multi-zone audio system might include a number of audio sources, but each audio source had to be connected to its own amplifier and a set of speakers and was typically installed in one place. *Id.* at 1:40-44. This had inherent limitations. "In order to play an audio source at one location, the audio source must be provided locally or

from a centralized location. When the audio source is provided locally, the multi-zone audio system functions as a collection of many stereo systems, making source sharing difficult. When the audio source is provided centrally, the centralized location may include a juke box, many compact discs, an AM or FM radio, tapes, or others. To send an audio source to an audio player demanding such source, a cross-bar type of device is used to prevent the audio source from going to other audio players that may be playing other audio sources." *Id.* at 1:44-44.

66. Moreover, as the '206 Patent recognized, "[i]n order to achieve playing different audio sources in different audio players, the traditional multi-zone audio system is generally either hard-wired or controlled by a pre-configured and pre-programmed controller." '206 Patent at 1:56-59. Such a system created problems. "While the pre-programmed configuration may be satisfactory in one situation, it may not be suitable for another situation. For example, a person would like to listen to broadcast news from his/her favorite radio station in a bedroom, a bathroom and a den while preparing to go to work in the morning. The same person may wish to listen in the den and the living room to music from a compact disc in the evening. In order to satisfy such requirements, two groups of audio players must be established. In the morning, the audio players in the bedroom, the bathroom and the den need to be grouped for the broadcast news. In the evening, the audio players in the den and the living room are grouped for the music. Over the weekend, the audio players in the den, the living room, and a kitchen are grouped for party music. Because the morning group, the evening group and the weekend group contain the den, it can be difficult for the traditional system to accommodate the requirement of dynamically managing the ad hoc creation and deletion of groups." *Id.* at 1:59-2:10.

67. Thus, the '206 Patent recognized "a need for dynamic control of the audio players as a group" and a system in which "the audio players may be readily grouped." '206 Patent at 2:11-13. The invention of the '206 Patent would, thus, overcome the problems "in a traditional multi-zone audio system [where] the audio players have to be adjusted one at a time, resulting in an inconvenient and non-homogenous audio environment." *Id.* at 2:13-16.

68. The ’206 Patent provided an unconventional solution to this technological problem. “In general, the present invention pertains to controlling a plurality of multimedia players, or simply players, in groups.” ’206 Patent at 2:28-29. One specific aspect of the grouping technology that is taught by the ’206 Patent involves a controller with a user interface that permits a user to configure and save a “zone scene,” which may comprise a “predefined” grouping of zone players that can later be “activated” (or “invoked”) in order to group the zone players in the “zone scene” together for synchronous playback. *Id.* at 2:30-53, 2:60-3:4, 8:19-10:45. The ’206 Patent explains that this “zone scene” technology for grouping zone players together for synchronous playback provides improvements over the existing technology for grouping zone players together for synchronous playback, which involved defining the group membership at the time that the group was to be invoked – particularly in situations where a larger number of zone players are to be grouped together for synchronous playback. *Id.* at 8:19-55. For instance, the benefits highlighted by the ’206 Patent include (i) allowing a group of zone players to be “predefined” as part of a “zone scene” so that the group’s membership need not be defined at the time that the group is to be invoked, (ii) allowing a predefined group to be invoked without requiring the zone players in the group to be separated from other groups beforehand, and (iii) allowing zone players to exist as part of multiple different predefined groups that can be invoked in order to dynamically group the zone players for synchronous playback. *Id.* at 8:19-10:45.

69. In line with these teachings, the ’206 Patent claims devices, computer-readable media, and methods for managing and using “zone scenes” to facilitate grouping of zone players. For example, claim 1 of the ’206 Patent recites a “multimedia controller including a processor” that is configured to (i) receive, via a network interface, a zone configuration from a first independent playback device of a plurality of independent playback devices, wherein the zone configuration is configured via the controller and maintained at the first independent playback device, and wherein the zone configuration characterizes one or more zone scenes, each zone scene identifying a group configuration associated with two or more of the plurality of independent playback devices, and (ii) cause a selectable indication of the received zone

configuration to be displayed, wherein the displayed selectable indication is selectable to cause one or more of the zone scenes to be invoked by two or more of the plurality of independent playback devices. *See* '206 Patent, claim 1.

U.S. Patent No. 10,469,966

70. Sonos is the owner of U.S. Patent No. 10,469,966 (the "'966 Patent"), entitled "Zone Scene Management," which was duly and legally issued by the United States Patent and Trademark Office ("USPTO") on November 5, 2019. A copy of the '966 Patent, is attached hereto as Exhibit 4.

71. The '966 Patent is related to the '206 Patent in that they are both continuations of application No. 13/896,829, filed on May 17, 2013, now U.S. Patent No. 8,843,228. Thus, the '966 and '206 Patents share essentially the same specification. Sonos incorporates by reference and re-alleges paragraphs 64-69 of this Complaint as if fully set forth herein.

72. The '906 Patent claims devices, computer-readable media, and methods for managing and using "zone scenes" to facilitate grouping of zone players, which provides an unconventional solution to the technological problems related to grouping zone players that are described in the '906 Patent.

73. For example, claim 1 of the '966 Patent describes a computing device with a processor that can execute instructions stored in the controllers non-transitory, computer-readable medium. Those instructions, when executed, cause the computing device to be operable to (i) receive a first request to create a first zone scene comprising a first predetermined grouping of zone players that are to be configured for synchronous playback when the first zone scene is invoked, and (ii) based on the first request, cause creation of the first zone scene, cause an indication of the first zone scene to be transmitted to a first zone player in the first zone scene, and cause storage of the first zone scene. *See, e.g.*, '966 Patent, claim 1. Additionally, the instructions, when executed, cause the computing device to be operable to (i) receive a second request to create a second zone scene comprising the first zone player and at least one other zone player that is not in the first zone scene, and (ii) based on the second request, cause creation of

the second zone scene, cause an indication of the second zone scene to be transmitted to the first zone player, and cause storage of the second zone scene. *Id.* Additionally yet, the instructions, when executed, cause the computing device to be operable to (i) display representations of the first and second zone scenes, (ii) while displaying the representations, receive a third request to invoke the first zone scene, and (iii) based on the third request, cause the first zone player to transition from operating in a standalone mode to operating in accordance with the first predefined grouping of zone players so 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. *Id.*

U.S. Patent No. 9,219,460

74. Sonos is the owner of U.S. Patent No. 9,219,460 (the "'460 Patent"), entitled "Audio Settings Based on Environment," which was duly and legally issued by the United States Patent and Trademark Office ("USPTO") on December 22, 2015. A copy of the '460 Patent, is attached hereto as Exhibit 5.

75. The '460 Patent relates generally to "consumer goods and, more particularly, to methods, systems, products, features, services, and other elements directed to media playback or some aspect thereof." '460 Patent at 1:6-9. More specifically, the '460 Patent is directed to dynamically adjusting the equalization of a playback device based on the environment in which the playback device is operating. *See, e.g., id.* at 1:64-66.

76. The '460 Patent recognized that "[w]hile a playback device may be factory configured to perform advantageously in a typical operating environment, the factory configuration may not be ideal for all environments." '460 Patent at 1:66-2:2. According to the '460 Patent, "adjusting the equalization of the playback device based on the current operating environment may improve the listening experience for some listeners." *Id.* at 2:3-5.

77. The '460 Patent recognized that there are several problems with existing technology for adjusting an audio player's equalization. '460 Patent at 2:12-14. For instance:

> First, the adjustment process is often overlooked by the user because, for example, the user may be required to initiate the adjustment and position the microphone. Second, the adjustment process requires a separate microphone, which may not be included with any of the components of the audio system. Third, the manual approach does not lend itself to frequent adjustment when one or more of the speakers may be re-positioned in different locations throughout a home or outdoors.

Id. at 2:23-32.

78. The ’460 Patent provides an unconventional technological solution to these problems. For example, the ’460 Patent discloses a playback device that “emit[s] an audio signal, such as a pulse, . . . [which] may encounter various objects, such as walls and furniture, throughout the environment.” ’460 Patent at 2:37-42. The ‘’460 Patent further discloses that “[w]hen an object is encountered, the object may variably reflect or absorb portions of the audio signal,” and “[a]t some point, a portion of the reflected audio signal may reflect back toward the playback device from which the audio signal was emitted.” *Id*. at 2:42-50. According to the ’460 Patent, “[t]he microphone of the playback device may then detect at least a portion of the reflected audio signal,” and “[i]n response to detecting the reflected audio signal, the playback device may determine one or more reflection characteristics based on the reflected audio signal.” *Id*. at 2:50-55. Moreover, the ’460 Patent discloses that “[t]he playback device may then adjust an equalization setting of the playback device based on the one or more reflection characteristics,” and “[o]nce the equalization setting is adjusted, the playback device may then play an audio track according to the equalization setting.” *Id*. at 3:6-26.

79. In line with these teachings, the ’460 Patent claims devices, systems, and methods for dynamically adjusting the equalization of a playback device based on the environment in which the playback device is operating, which provide an unconventional solution to the technological problems described in the ’460 Patent. For example, claim 15 of the ’460 Patent describes a playback device with a speaker, a microphone that is physically coupled to the speaker, a processor, a network interface, a data storage, and a program logic stored in the data storage and executable by the processor. The program logic, when executed, causes the playback device to be operable to (i) emit a first audio signal from the speaker, and (ii) detect a second audio signal via the microphone that is physically coupled to the speaker, where at least a portion of the second

audio signal is a reflection of the first audio signal. *See* '460 Patent, claim 15. Additionally, the program logic, when executed, causes the playback device to be operable to (i) in response to detecting the second audio signal, determine a first reflection characteristic based on at least the second audio signal, (ii) adjust an equalization setting of the playback device based on at least the first reflection characteristic, and (iii) play, via the speaker, an audio track according to the adjusted equalization setting. *Id.*

COUNT I: INFRINGEMENT OF U.S. PATENT NO. 9,967,615

80. Sonos incorporates by reference and re-alleges paragraphs 1-79 of this Complaint as if fully set forth herein.

81. Google and/or users of the Google Wireless Audio System have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe one or more of the claims of the '615 Patent, in violation of 35 U.S.C. § 271(a), by making, using, offering for sale, and/or selling the Google Wireless Audio System within the United States and/or importing the Google Wireless Audio System into the United States without authority or license.

82. As just one non-limiting example, set forth below is an exemplary infringement claim chart for claim 13 of the '615 Patent in connection with the Google Wireless Audio System. This claim chart is based on publicly available information. Sonos reserves the right to modify this claim chart, including, for example, on the basis of information about the Google Wireless Audio System that it obtains during discovery.

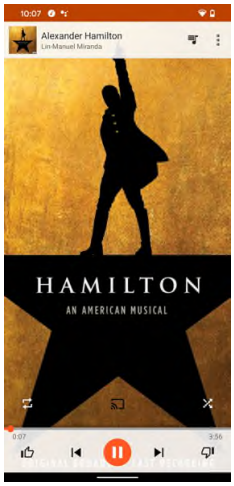
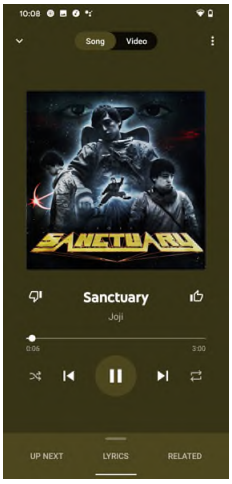
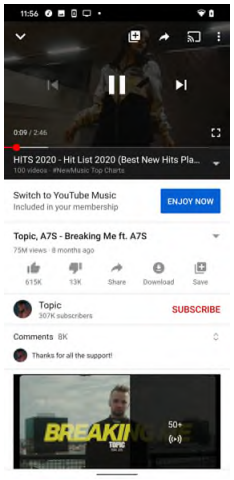
Claim: 13	Chromecast-Enabled Computing Devices
A tangible, non-transitory computer readable storage medium including instructions for	At least each smartphone, tablet, and computer running the YouTube Music app, the Google Play Music app, the YouTube app and/or other native or web-based Chromecast-enabled apps (where a computing device installed with at least one of these Chromecast-enabled apps is referred to herein as a "Chromecast-enabled computing device"[1,2])

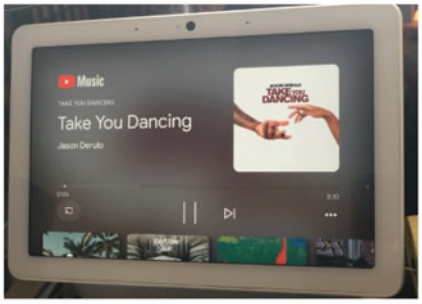
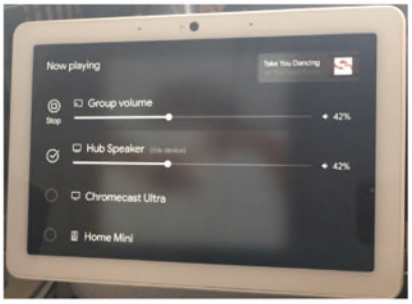
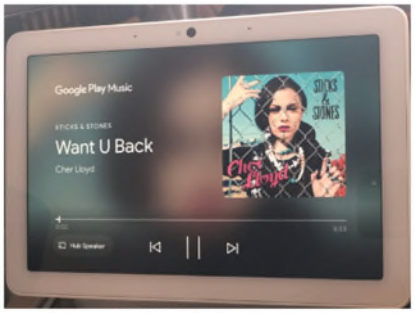
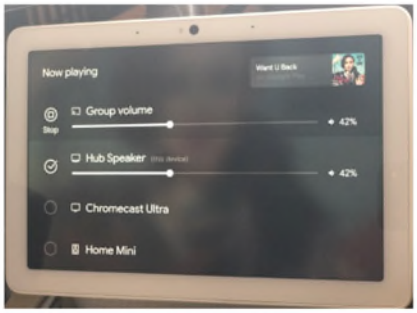
[1] Any reference to a "Chromecast-enabled computing device" or "Chromecast-enabled media player" includes each version and generation of such device/player unless otherwise noted.

[2] Each Google "Pixel" smartphone, tablet, and computer (*e.g.*, the Pixel 3, Pixel 3 XL, Pixel 3a, Pixel 3a XL, Pixel 4, Pixel 4 XL, and Pixel 4a phones, the Pixel Slate tablet, and the Pixelbook

Claim: 13	Chromecast-Enabled Computing Devices
execution by a processor, the instructions, when executed, cause a control device to implement a method comprising:	comprises a "control device," as recited in claim 13. At least each Home Mini, Nest Mini, Home, Home Max, Home Hub, Nest Hub, Nest Hub Max, Nest Wifi Point, Chromecast, Chromecast Audio, Chromecast Ultra, Chromecast with Google TV, and Nest Audio ("Chromecast-enabled media player") is a data network device configured to process and output audio, and thus, comprises a "playback device" as recited in claim 13. *See, e.g.*, https://store.google.com/us/magazine/compare_pixel; https://store.google.com/us/product/google_pixelbook_specs; https://store.google.com/us/product/pixel_slate_specs; https://store.google.com/us/product/google_home_max?hl=en-US; https://store.google.com/us/product/google_home_max_partners?hl=en-US; https://store.google.com/product/chromecast_apps?utm_source=chromecast.com. In addition to being a "playback device" as recited in claim 13, each Home Hub, Nest Hub, and Nest Hub Max (referred to herein as a "Hub media player") is installed with Home/Nest Hub controller software such that the given Hub media player also comprises a "control device," as recited in claim 13. *See, e.g.*, https://store.google.com/us/product/google_nest_hub?hl=en-US#overview-modal-music; https://store.google.com/us/product/google_nest_hub_max?hl=en-US; https://support.google.com/googlenest/answer/9165738?hl=en-GB&ref_topic=7030084. Each Chromecast-enabled computing device includes a tangible, non-transitory computer-readable storage medium comprising instructions that, when executed by a Chromecast-enabled computing device's processor, cause that Chromecast-enabled computing device to perform the functions identified below. *See, e.g.*, https://store.google.com/us/magazine/compare_pixel; https://store.google.com/us/product/google_pixelbook_specs; https://store.google.com/us/product/pixel_slate_specs. Likewise, each Hub media player includes a tangible, non-transitory computer-readable storage medium comprising instructions that, when executed by a Hub media player's processor, cause that Hub media player to perform the functions identified below. *See, e.g.*, https://store.google.com/us/product/google_home_max?hl=en-US.

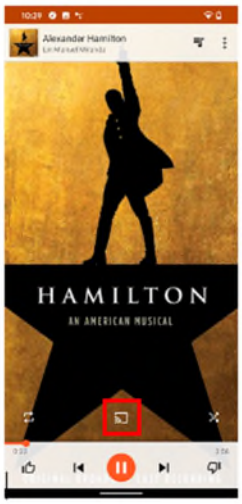
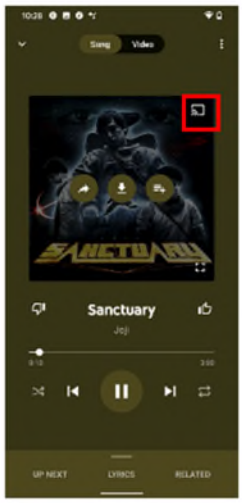
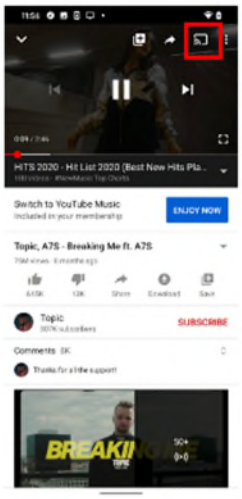
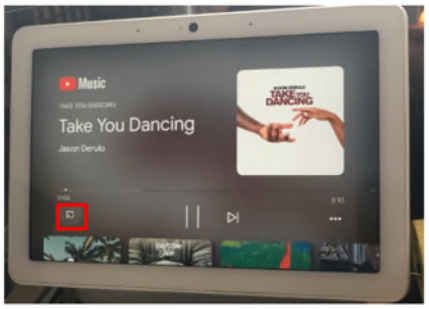
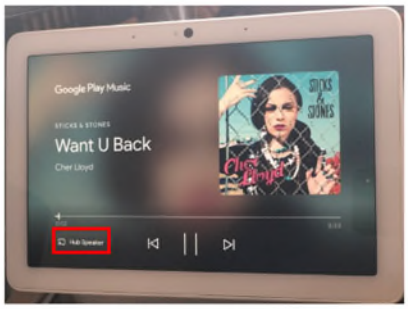
and Pixelbook Go laptops) running the YouTube Music app, the Google Play Music app, the YouTube app, the Google Home app, and/or other native or web-based Chromecast-enabled app is an example of a "Chromecast-enabled computing device."

Claim: 13	Chromecast-Enabled Computing Devices
causing a graphical interface to display a control interface including one or more transport controls to control playback by the control device;	Each Chromecast-enabled computing device comprises instructions that, when executed by a Chromecast-enabled computing device's processor, cause its graphical interface to display a control interface including one or more transport controls to control playback by the Chromecast-enabled computing device. For instance, each Chromecast-enabled computing device is programmed with the capability to cause its graphical interface to display a control interface having one or more transport controls that, at times, are configured to control the Chromecast-enabled computing device's playback of multimedia content from a streaming content service, among other media sources. *See, e.g.*, https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084 ("You can even use your mobile device or tablet as a remote and control everything from playback to volume."); https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en ("Using your phone or tablet: [ ] You can use the playback controls on the Google Play Music app . . . Using your computer: [ ] You can use the playback controls on Google Play Music, near the bottom of the screen."); https://support.google.com/chromecast/answer/2995235?hl=en-AU; https://support.google.com/googlenest/answer/7030379?co=GENIE.Platform%3DAndroid&hl=en-GB; https://support.google.com/chromecast/answer/3265953?hl=en-GB&ref_topic=4602553. Examples of this functionality are illustrated in the following screenshots from a Chromecast-enabled computing device running at least the YouTube Music, Google Play Music, and YouTube apps:    Likewise, each Hub media player comprises instructions that, when executed by a Hub media player's processor, cause its graphical

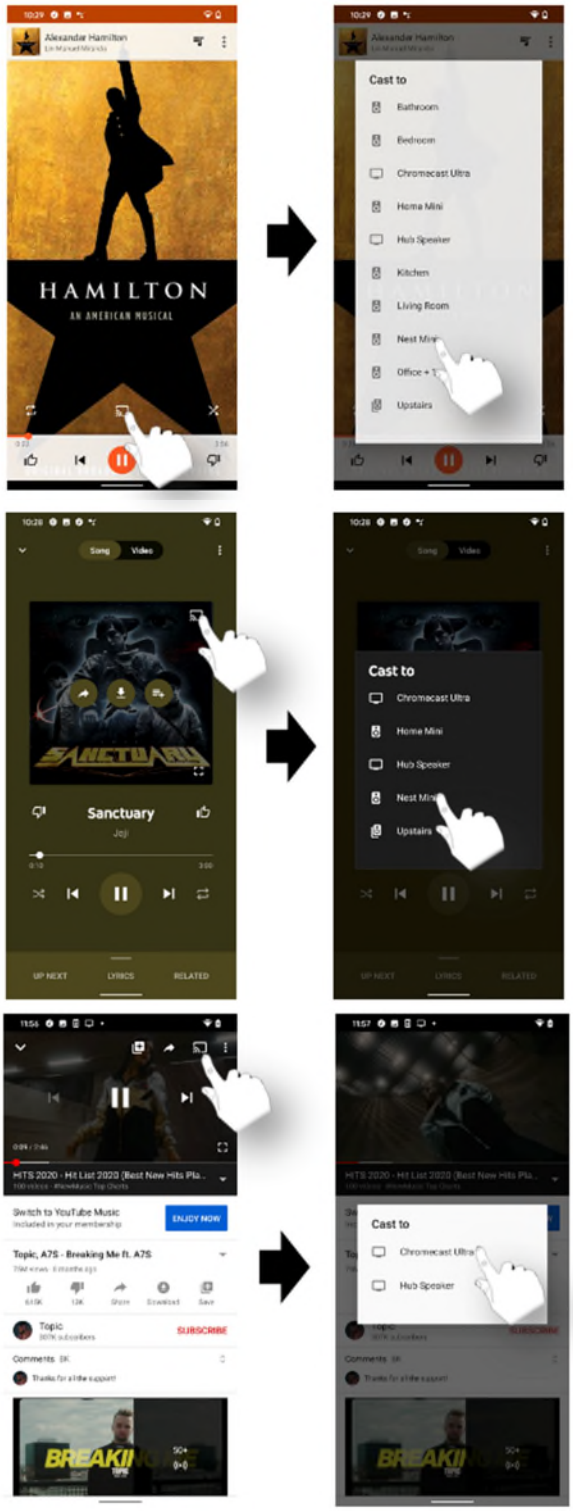
Claim: 13	Chromecast-Enabled Computing Devices
	interface to display a control interface including one or more transport controls to control playback by the Hub media player. For instance, each Hub media player is programmed with the capability to cause its graphical interface to display a control interface having one or more transport controls that, at times, are configured to control the Hub media player's playback of multimedia content from a streaming content service, among other media sources. *See, e.g.*, https://store.google.com/us/product/google_nest_hub?hl=en-US#overview-modal-music ("YouTube Music on demand. . . . Stream top music services."); https://store.google.com/us/product/google_nest_hub_max?hl=en-US ("jam out with YouTube Music."); https://support.google.com/googlenest/answer/9165738?hl=en-GB&ref_topic=7030084 ("With YouTube built-in to your Google Nest display, you can watch YouTube Originals, how-to videos and much more, seamlessly on your screen."). Examples of this functionality are illustrated in the following screenshots from a Hub media player running at least the YouTube Music, Google Play Music, and YouTube apps:    

Claim: 13	Chromecast-Enabled Computing Devices
after connecting to a local area network via a network interface, identifying playback devices connected to the local area network;	Each Chromecast-enabled computing device comprises instructions that, when executed by a Chromecast-enabled computing device's processor, cause that Chromecast-enabled computing device to, after connecting to a local area network ("LAN") via a network interface, identify Chromecast-enabled media players connected to the LAN. For instance, each Chromecast-enabled computing device is programmed such that, after connecting to a LAN, the Chromecast-enabled computing device is configured to identify one or more Chromecast-enabled media players connected to that same LAN. *See, e.g.*, https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084 ("Make sure that your mobile device or tablet is connected to the same Wi-Fi network or linked to the same account as your Google Nest or Home speaker or display. . . . Tap the speaker or display for which you'd like to cast."); https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en ("Connect your phone or tablet and Chromecast to the same wireless network. . . . Select your Chromecast device from the device list."); https://support.google.com/chromecast/answer/2995235?hl=en-AU ("Make sure that your mobile device or computer is connected to the same Wi-Fi network as Chromecast. . . . Tap the Chromecast device to which you want to cast."); https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1("To show Chrome on your TV, you'll need . . . [t]o connect your computer and Chromecast device to the same Wi-Fi network."); https://support.google.com/chromecast/answer/3265953?hl=en-GB&ref_topic=4602553. Likewise, each Hub media player comprises instructions that, when executed by a Hub media player's processor, cause that Hub media player to, after connecting to a LAN via a network interface, identify Chromecast-enabled media players connected to the LAN. For instance, each Hub media player is programmed such that, after connecting to a LAN, the Hub media player is configured to identify

Claim: 13	Chromecast-Enabled Computing Devices
	one or more Chromecast-enabled media players connected to that same LAN. *See, e.g.,*https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084 ("At the bottom-left corner of the screen, tap Devices to see the list of available devices and speaker groups.").
causing the graphical interface to display a selectable option for transferring playback from the control device;	Each Chromecast-enabled computing device comprises instructions that, when executed by a Chromecast-enabled computing device's processor, cause its graphical interface to display a selectable option for transferring playback from the Chromecast-enabled computing device. For instance, each Chromecast-enabled computing device is programmed with the capability to cause its graphical interface to display a selectable option (e.g., a selectable "Cast button") for transferring playback of multimedia content from the Chromecast-enabled computing device to another device (e.g., a Chromecast-enabled media player). *See, e.g.,* https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084 ("Tap the Cast button . . . . Tap the speaker or display for which you'd like to cast."); https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en ("Tap the Cast button . . . . Select your Chromecast device from the device list."); https://support.google.com/chromecast/answer/2995235?hl=en-AU ("Tap the Cast button . . . . Tap the Chromecast device to which you want to cast."); https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1("2. At the top right, click More Cast. 3. Choose the Chromecast device where you want to watch the content."); https://support.google.com/chromecast/answer/3265953?hl=en-GB&ref_topic=4602553. Examples of this functionality are illustrated in the following screenshots from a Chromecast-enabled computing device running at least the YouTube Music, Google Play Music, and YouTube apps:

Claim: 13	Chromecast-Enabled Computing Devices
	   Likewise, each Hub media player comprises instructions that, when executed by a Hub media player's processor, cause its graphical interface to display a selectable option for transferring playback from the Hub media player to another Chromecast-enabled media player. For instance, each Hub media player is programmed with the capability to cause its graphical interface to display a selectable option (e.g., a selectable "Cast button") for transferring playback of multimedia content from the Hub media player to another device (e.g., a Chromecast-enabled media player). *See, e.g.*, https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084 ("At the bottom-left corner of the screen, tap Devices to see the list of available devices and speaker groups. . . . Select the device for which you want to move your media."). Examples of this functionality are illustrated in the following screenshots from a Hub media player running at least the YouTube Music, Google Play Music, and YouTube apps:  

Claim: 13	Chromecast-Enabled Computing Devices
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:	Each Chromecast-enabled computing device comprises instructions that, when executed by a Chromecast-enabled computing device's processor, cause that Chromecast-enabled computing device to detect a set of inputs to transfer playback from the Chromecast-enabled computing device to a particular Chromecast-enabled media player, where the set of inputs comprises: (i) a selection of the selectable option for transferring playback from the Chromecast-enabled computing device and (ii) a selection of the particular Chromecast-enabled media player from the identified Chromecast-enabled media players connected to the LAN. For instance, each Chromecast-enabled computing device is programmed with the capability to (i) detect a selection of a displayed selectable option (e.g., a selectable "Cast button") for transferring playback of multimedia content from the Chromecast-enabled computing device to another device, which triggers the Chromecast-enabled computing device to display a list of available devices for transferring playback that includes one or more identified Chromecast-enabled media players on the same LAN, and then (ii) detect a selection of at least one particular Chromecast-enabled media player connected to the same LAN. *See, e.g.,* https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084 ("Tap the Cast button . . . . Tap the speaker or display for which you'd like to cast."); https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en ("Tap the Cast button . . . . Select your Chromecast device from the device list."); https://support.google.com/chromecast/answer/2995235?hl=en-AU ("Tap the Cast button . . . . Tap the Chromecast device to which you want to cast."); https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1("2. At the top right, click More ⋮ > Cast. 3. Choose the Chromecast device where you want to watch the content."); https://support.google.com/chromecast/answer/3265953?hl=en-GB&ref_topic=4602553. Examples of this functionality are illustrated in the following screenshots from a Chromecast-enabled

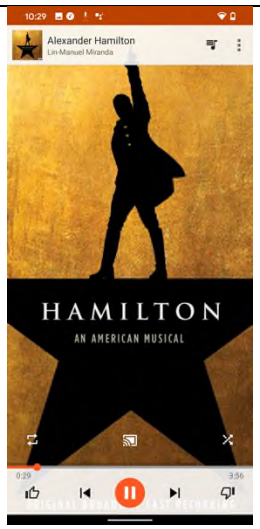
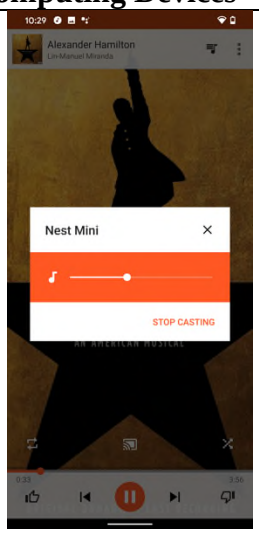
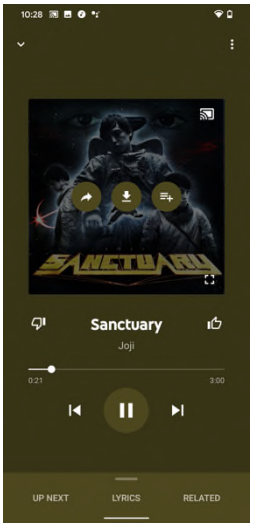
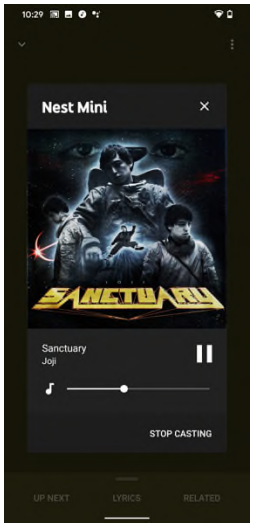
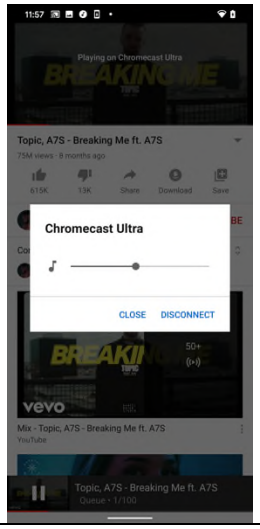
Claim: 13	Chromecast-Enabled Computing Devices
	computing device running at least the YouTube Music, Google Play Music, and YouTube apps: 

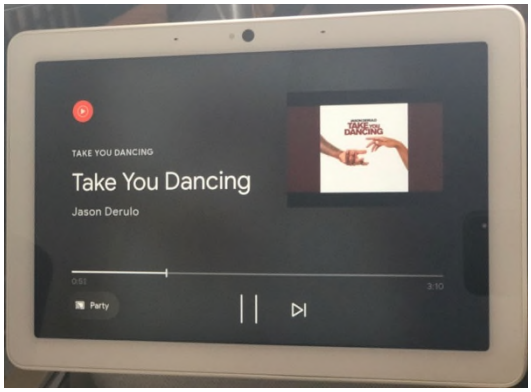
Claim: 13	Chromecast-Enabled Computing Devices
	Likewise each Hub media player comprises instructions that, when executed by a Hub media player's processor, cause that Hub media player to detect a set of inputs to transfer playback from the Hub media player to a particular Chromecast-enabled media player, where the set of inputs comprises: (i) a selection of the selectable option for transferring playback from the Hub media player and (ii) a selection of the particular Chromecast-enabled media player from the identified Chromecast-enabled media players connected to the LAN. For instance, each Hub media player is programmed with the capability to (i) detect a selection of a displayed selectable option (e.g., a selectable "Cast button") for transferring playback of multimedia content from the Hub media player to another device, which triggers the Hub media player to display a list of available devices for transferring playback that includes one or more identified Chromecast-enabled media players on the same LAN, and then (ii) detect a selection of at least one particular Chromecast-enabled media player connected to the same LAN. *See, e.g.*, https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084 ("At the bottom-left corner of the screen, tap Devices to see the list of available devices and speaker groups. . . . Select the device for which you want to move your media."). Examples of this functionality are illustrated in the following screenshots from a Hub media player running at least the YouTube Music, Google Play Music, and YouTube apps:

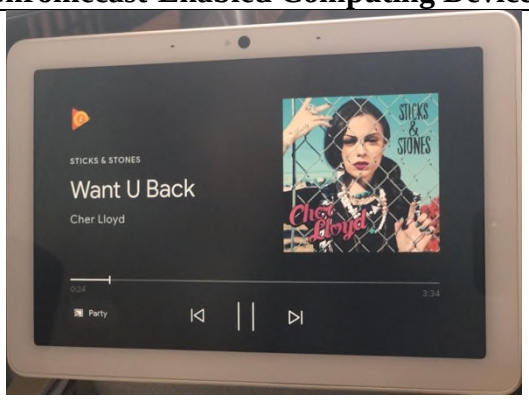
Claim: 13	Chromecast-Enabled Computing Devices
after detecting the set of inputs to transfer playback from the control device to the particular playback device, causing playback to be transferred from the control device to the particular playback device,	Each Chromecast-enabled computing device comprises instructions that, when executed by a Chromecast-enabled computing device's processor, cause that Chromecast-enabled computing device to, after detecting the set of inputs to transfer playback from the Chromecast-enabled computing device to the particular Chromecast-enabled media player, cause playback to be transferred from the Chromecast-enabled computing device to the particular Chromecast-enabled media player. For instance, each Chromecast-enabled computing device is programmed such that, after detecting a set of inputs to transfer the Chromecast-enabled computing device's playback of multimedia content to at least one particular Chromecast-enabled media player, the Chromecast-enabled computing device causes the playback of the multimedia content to be transferred to the at least one particular Chromecast-enabled media player. *See, e.g.*, https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084 ("When you're connected, the Cast button will turn from light to dark grey, letting you know that you're connected."); https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1("To the right of the address bar, next to your extensions, you'll see Active cast ."); https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/chromecast/answer/2995235?hl=en-AU; https://support.google.com/chromecast/answer/3265953?hl=en-GB&ref_topic=4602553. Likewise, each Hub media player comprises instructions that, when executed by a Hub media player's processor, cause that Hub media player to, after detecting the set of inputs to transfer playback from the Hub media player to the particular Chromecast-enabled media player, cause playback to be transferred from the Hub media player to the particular Chromecast-enabled media player.

Claim: 13	Chromecast-Enabled Computing Devices
	For instance, each Hub media player is programmed such that, after detecting a set of inputs to transfer the Hub media player's playback of multimedia content to at least one particular Chromecast-enabled media player, the Hub media player causes the playback of the multimedia content to be transferred to the at least one particular Chromecast-enabled media player. *See, e.g.*, https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084.
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	Each Chromecast-enabled computing device and each Hub media player is programmed such that transferring playback to the particular Chromecast-enabled media player comprises: (a) causing one or more first cloud servers to add multimedia content to a local playback queue on the particular Chromecast-enabled media player, where 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 Chromecast-enabled computing device (or Hub media player) to be stopped, and (c) modifying the one or more transport controls of the control interface to control playback by the Chromecast-enabled media player. For instance, on information and belief, each Chromecast-enabled computing device and each Hub media player is programmed such that, after detecting a set of inputs to transfer playback of multimedia content from a streaming content service (e.g., Google Play Music, YouTube Music, YouTube, etc.) to at least one particular Chromecast-enabled media player, the respective control device functions to (a) cause a first cloud server associated with the streaming content service (e.g., a first Google cloud server) to add resource locators for such multimedia content to a local playback queue of the particular Chromecast-enabled media player, where the resource locators correspond to locations of the multimedia content at a second cloud server associated with the streaming content service (e.g., a second Google cloud server), (b) stop its own playback of the multimedia content from the streaming content service, and (c) modify one or more transport controls of its control interface such that the one or more transport controls function to control playback by the at least one particular Chromecast-enabled media player rather than playback by the Chromecast-enabled computing device. *See, e.g.*, https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/chromecast/answer/2995235?hl=en-AU;

Claim: 13	Chromecast-Enabled Computing Devices
the playback device; and	https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1.
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.	Each Chromecast-enabled computing device comprises instructions that, when executed by a Chromecast-enabled computing device's processor, cause the particular Chromecast-enabled media player to play back the multimedia content, where the particular Chromecast-enabled media player playing back the multimedia content comprises the particular Chromecast-enabled media player retrieving the multimedia content from one or more second cloud servers of a streaming content service and playing back the retrieved multimedia content. For instance, on information and belief, each Chromecast-enabled computing device is programmed such that, after causing the Chromecast-enabled computing device's playback of multimedia content from a streaming content service (e.g., Google Play Music, YouTube Music, YouTube, etc.) to be transferred to at least one particular Chromecast-enabled media player, the Chromecast-enabled computing device causes the at least one particular Chromecast-enabled media player to play back the multimedia content from the streaming content service, which involves the particular Chromecast-enabled media player retrieving the multimedia content from the second cloud server associated with the streaming music service (e.g., the Google cloud server) and then playing back the retrieved multimedia content. *See, e.g.*, https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/chromecast/answer/2995235?hl=en-AU; https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1; https://support.google.com/chromecast/answer/3265953?hl=en-GB&ref_topic=4602553. Examples of this functionality are illustrated in the following screenshots from a Chromecast-enabled computing device running at least the YouTube Music, Google Play Music, and YouTube apps:

Claim: 13	Chromecast-Enabled Computing Devices
	    

Claim: 13	Chromecast-Enabled Computing Devices
	Likewise each Hub media player comprises instructions that, when executed by a Hub media player's processor, cause the particular Chromecast-enabled media player to play back the multimedia content, where the particular Chromecast-enabled media player playing back the multimedia content comprises the particular Chromecast-enabled media player retrieving the multimedia content from one or more second cloud servers of a streaming content service and playing back the retrieved multimedia content. For instance, on information and belief, each Hub media player is programmed such that, after causing the Hub media player's playback of multimedia content from a streaming content service (e.g., Google Play Music, YouTube Music, YouTube, etc.) to be transferred to at least one particular Chromecast-enabled media player, the Hub media player causes the at least oen particular Chromecast-enabled media player to play back the multimedia content from the streaming content service, which involves the particular Chromecast-enabled media player retrieving the multimedia content from the second cloud server associated with the streaming music service (e.g., the second Google cloud server) and then playing back the retrieved multimedia content. *See, e.g.,* https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084. Examples of this functionality are illustrated in the following screenshots from a Hub media player running at least the YouTube Music, Google Play Music, and YouTube apps: 

Claim: 13	Chromecast-Enabled Computing Devices
	

83. On September 28, 2020, Sonos provided Google with a draft of this complaint prior to its filing. That draft identified the ’615 Patent and described how Google’s products infringed. Thus, Google had actual knowledge of Sonos’s allegation that Google infringed claims of the ’615 Patent prior to Sonos filing the complaint in this action.

84. Additionally and/or alternatively, Google has indirectly infringed and continues to indirectly infringe one or more of the claims of the ’615 Patent, in violation of 35 U.S.C. § 271(b), by actively inducing users of the Google Wireless Audio System to directly infringe the one or more claims of the ’615 Patent. In particular, (a) Google had actual knowledge of the ’615 Patent or was willfully blind to its existence prior to, and no later than, February 2019 and had actual knowledge or was willfully blind to Sonos’s infringement allegations at least as early as September 28, 2020 when Sonos provided Google a copy of the complaint (*see* ¶¶ 19-29, above), (b) Google intentionally causes, urges, or encourages users of the Google Wireless Audio System to directly infringe one or more claims of the ’615 Patent by promoting, advertising, and

instructing customers and potential customers about the Google Wireless Audio System (including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement (*see* Exs. 22-27; *see also* citations above in the exemplary infringement claim chart for claim 13 of the ’615 Patent), (c) Google knows (or should know) that its actions will induce users of the Google Wireless Audio System to directly infringe one or more claims the ’615 Patent, and (d) users of the Google Wireless Audio System directly infringe one or more claims of the ’615 Patent. For instance, at a minimum, Google has supplied and continues to supply the YouTube Music, Google Play Music, and YouTube apps to customers while knowing that installation and/or use of one or more of these apps will infringe one or more claims of the ’615 Patent, and that Google’s customers then directly infringe one or more claims of the ’615 Patent by installing and/or using one or more of the these apps in accordance with Google’s product literature. *See, e.g., id.*

85. Additionally and/or alternatively, Google has indirectly infringed and continues to indirectly infringe one or more of the claims of the ’615 Patent, in violation of 35 U.S.C. § 271(c), by offering to sell or selling within the United States, and/or importing into the United States, components in connection with the Google Wireless Audio System that contribute to the direct infringement of the ’615 Patent by users of the Google Wireless Audio System. In particular, (a) Google had actual knowledge of the ’615 Patent or was willfully blind to its existence prior to, and no later than, February 2019 and had actual knowledge or was willfully blind to Sonos’s infringement allegations at least as early as September 28, 2020 when Sonos provided Google a copy of the complaint (*see* ¶¶ 19-29 above), (b) Google offers for sale, sells, and/or imports, in connection with the Google Wireless Audio System, one or more material components of the invention of the ’615 Patent that are not staple articles of commerce suitable for substantial noninfringing use, (c) Google knows (or should know) that such component(s) were especially made or especially adapted for use in an infringement of the ’615 Patent, and (d) users of devices that comprise such material component(s) directly infringe one or more claims of the ’615 Patent. For instance, at a minimum, Google offers for sale, sells, and/or imports the YouTube Music,

Google Play Music, and YouTube apps for installation on devices (*e.g.*, smartphones, tablets, and computers) that meet one or more claims of the ’615 Patent. *See, e.g.*, Exs. 22-27. These apps are a material component of the devices that meet the one or more claims of the ’615 Patent. Further, Google especially made and/or adapted these apps for installation and use on devices that meet the one or more claims of the ’615 Patent, and these apps are not a staple article of commerce suitable for substantial noninfringing use. Google’s customers then directly infringe the one or more claims of the ’615 Patent by installing and/or using these apps on the customers’ devices.

86. Google’s infringement of the ’615 Patent is also willful because Google (a) had actual knowledge of the ’615 Patent no later than February 2019 and actual notice of Sonos’s infringement contentions no later than September 28, 2020 (*see* ¶¶ 19-29 above), (b) engaged in the aforementioned activity despite an objectively high likelihood that Google’s actions constituted infringement of the ’615 Patent, and (c) this objectively-defined risk was either known or so obvious that it should have been known to Google.

87. Additional allegations regarding Google’s pre-suit knowledge of the ’615 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

88. Sonos is entitled to recover from Google all damages that Sonos has sustained as a result of Google’s infringement of the ’615 Patent, including, without limitation, a reasonable royalty and lost profits.

89. Google’s infringement of the ’615 Patent was and continues to be willful and deliberate, entitling Sonos to enhanced damages.

90. Google’s infringement of the ’615 Patent is exceptional and entitles Sonos to attorneys’ fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

91. Google’s infringement of the ’615 Patent has caused irreparable harm (including the loss of market share) to Sonos and will continue to do so unless enjoined by this Court.

COUNT II: INFRINGEMENT OF U.S. PATENT NO. 10,779,033

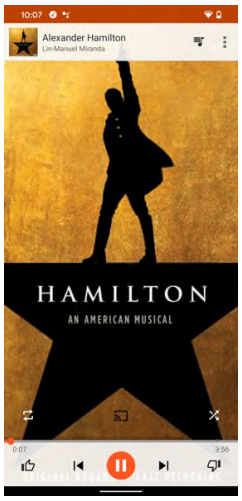
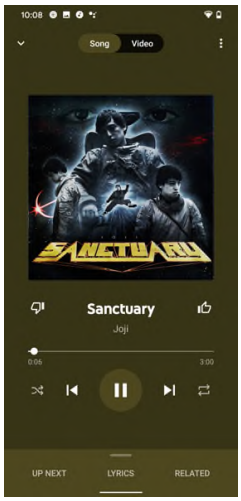
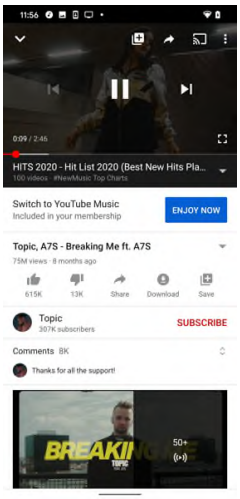
92. Sonos incorporates by reference and re-alleges paragraphs 1-79 of this Complaint as if fully set forth herein.

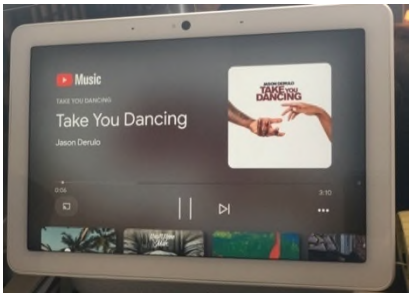
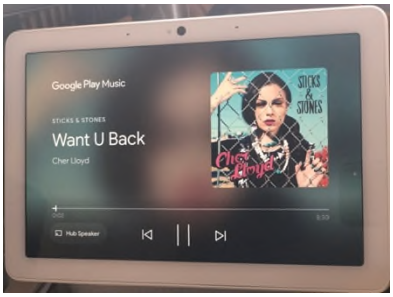
93. Google and/or users of the Google Wireless Audio System have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe one or more of the claims of the ’033 Patent, in violation of 35 U.S.C. § 271(a), by making, using, offering for sale, and/or selling the Google Wireless Audio System within the United States and/or importing the Google Wireless Audio System into the United States without authority or license.

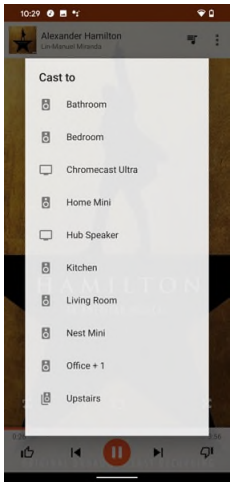
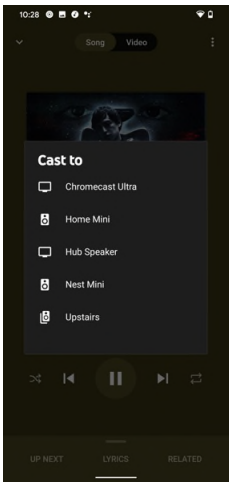
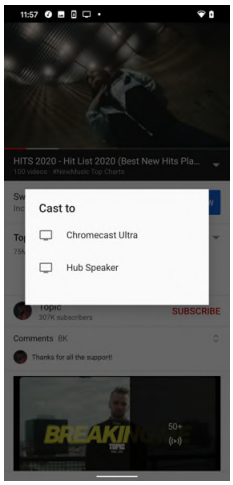
94. As just one non-limiting example, set forth below is an exemplary infringement claim chart for claim 1 of the ’033 Patent in connection with the Google Wireless Audio System. This claim chart is based on publicly available information. Sonos reserves the right to modify this claim chart, including, for example, on the basis of information about the Google Wireless Audio System that it obtains during discovery.

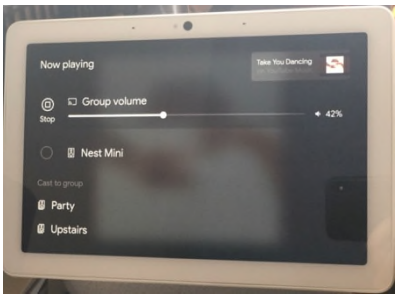
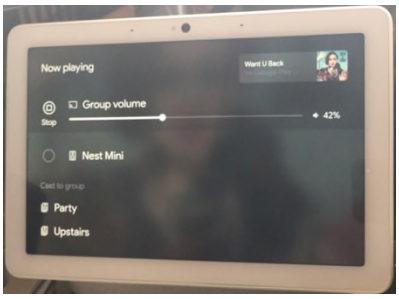
Claim: 1	Chromecast-Enabled Computing Devices
A computing device comprising:	At least each smartphone, tablet, and computer running the YouTube Music app, the Google Play Music app, the YouTube app, and/or other native or web-based Chromecast-enabled apps (where a computing device installed with at least one of these Chromecast-enabled apps is referred to herein as a “Chromecast-enabled computing device”) comprises a “computing device,” as recited in claim 1. At least each Home Mini, Nest Mini, Home, Home Max, Home Hub, Nest Hub, Nest Hub Max, Nest Wifi Point, Chromecast, Chromecast Audio, Chromecast Ultra, Chromecast with Google TV, and Nest Audio (“Chromecast-enabled media player”) is a data network device configured to process and output audio, and thus, comprises a “playback device” as recited in claim 13. *See, e.g.*, https://store.google.com/us/magazine/compare_pixel; https://store.google.com/us/product/google_pixelbook_specs; https://store.google.com/us/product/pixel_slate_specs; https://store.google.com/us/product/google_home_max?hl=en-US; https://store.google.com/us/product/google_home_max_partners?hl=en-US; https://store.google.com/product/chromecast_apps?utm_source=chromecast.com.

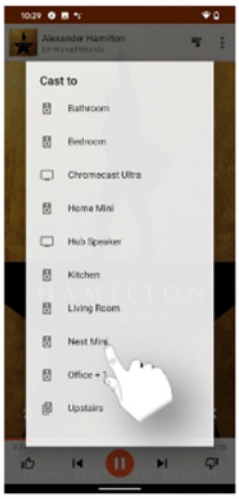
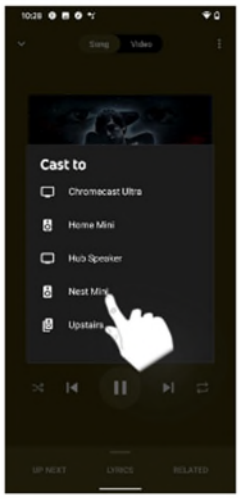
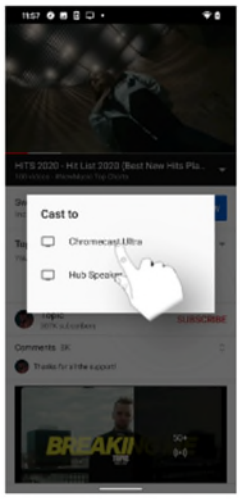
Claim: 1	Chromecast-Enabled Computing Devices
	In addition to being a "playback device" as recited in claim 1, each Home Hub, Nest Hub, and Nest Hub Max (referred to herein as a "Hub media player") is installed with Home/Nest Hub controller software such that the given Hub media player also comprises a "computing device," as recited in claim 1. *See, e.g.,* https://store.google.com/us/product/google_nest_hub?hl=en-US#overview-modal-music; https://store.google.com/us/product/google_nest_hub_max?hl=en-US; https://support.google.com/googlenest/answer/9165738?hl=en-GB&ref_topic=7030084.
at least one processor;	Each Chromecast-enabled computing device and each Hub media player includes at least one processor. *See, e.g.,* https://store.google.com/us/magazine/compare_pixel; https://store.google.com/us/product/google_pixelbook_specs; https://store.google.com/us/product/pixel_slate_specs; https://store.google.com/us/product/google_home_max?hl=en-US.
a non-transitory computer-readable medium; and	Each Chromecast-enabled computing device and each Hub media player includes a non-transitory computer-readable medium. *See, e.g.,* https://store.google.com/us/magazine/compare_pixel; https://store.google.com/us/product/google_pixelbook_specs; https://store.google.com/us/product/pixel_slate_specs; https://store.google.com/us/product/google_home_max?hl=en-US.
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:	Each Chromecast-enabled computing device and each Hub media player includes program instructions stored on the non-transitory computer-readable medium that enable the respective device to perform the functions identified below. *See, e.g.,* https://store.google.com/us/magazine/compare_pixel; https://store.google.com/us/product/google_pixelbook_specs; https://store.google.com/us/product/pixel_slate_specs; https://store.google.com/us/product/google_home_max?hl=en-US.
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;	Each Chromecast-enabled computing device comprises instructions that, when executed by a Chromecast-enabled computing device's processor, cause the Chromecast-enabled computing device to operate in a first mode in which the Chromecast-enabled 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. For instance, each Chromecast-enabled computing device is programmed with the capability to operate in a mode in which the Chromecast-enabled computing device is configured for playback of a remote playback queue provided by a Google cloud server associated with a cloud-based media service (e.g., Google Play Music, YouTube

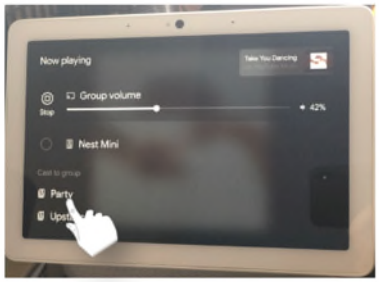
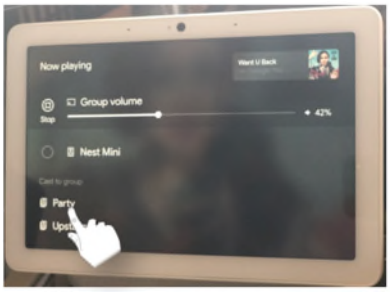
Claim: 1	Chromecast-Enabled Computing Devices
	Music, YouTube, etc.). *See, e.g.,* https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/chromecast/answer/2995235?hl=en-AU; https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1; https://support.google.com/chromecast/answer/3265953?hl=en-GB&ref_topic=4602553. Examples of this functionality are illustrated in the following screenshots from a Chromecast-enabled computing device running at least the YouTube Music, Google Play Music, and YouTube apps:    Likewise, each Hub media player comprises instructions that, when executed by a Hub media player's processor, cause the Hub media player to operate in a first mode in which the Hub media player is configured for playback of a remote playback queue provided by a cloud-based computing system associated with a cloud-based media service. For instance, each Hub media player is programmed with the capability to operate in a mode in which the Hub media player is configured for playback of a remote playback queue provided by a Google cloud server associated with a cloud-based media service (e.g., Google Play Music, YouTube Music, YouTube, etc.). *See, e.g.,* https://store.google.com/us/product/google_nest_hub?hl=en-US#overview-modal-music ("YouTube Music on demand. . . . Stream top music services.");

Claim: 1	Chromecast-Enabled Computing Devices
	https://store.google.com/us/product/google_nest_hub_max?hl=en-US ("jam out with YouTube Music."); https://support.google.com/googlenest/answer/9165738?hl=en-GB&ref_topic=7030084 ("With YouTube built-in to your Google Nest display, you can watch YouTube Originals, how-to videos and much more, seamlessly on your screen."). Examples of this functionality are illustrated in the following screenshots from a Hub media player running at least the YouTube Music, Google Play Music, and YouTube apps:  
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;	Each Chromecast-enabled computing device comprises instructions that, when executed by a Chromecast-enabled computing device's processor, cause the Chromecast-enabled computing device to, while operating in the first mode, display a representation of one or more Chromecast-enabled media players in a Chromecast-enabled playback system that are each (i) communicatively coupled to the Chromecast-enabled computing device over a data network and (ii) available to accept playback responsibility for the remote playback queue. For instance, each Chromecast-enabled computing device is programmed such that, while operating in a mode in which the Chromecast-enabled computing device is configured for playback of a remote playback queue provided by a Google cloud server associated with a cloud-based media service (e.g., Google Play Music, YouTube Music, YouTube, etc.), the Chromecast-enabled computing device is operable to detect a selection of a displayed selectable option (e.g., a selectable "Cast button") for transferring playback of multimedia content from the Chromecast-enabled computing device to another

Claim: 1	Chromecast-Enabled Computing Devices
	device, which triggers the Chromecast-enabled computing device to display a list of available devices for transferring playback that includes one or more Chromecast-enabled media players in a Chromecast-enabled playback system that are each (i) communicatively coupled to the Chromecast-enabled computing device over a local area network ("LAN") and (ii) available to accept playback responsibility for the remote playback queue. *See, e.g.*, https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084 ("Tap the Cast button . . . . Tap the speaker or display for which you'd like to cast."); https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en ("Tap the Cast button . . . . Select your Chromecast device from the device list."); https://support.google.com/chromecast/answer/2995235?hl=en-AU ("Tap the Cast button . . . . Tap the Chromecast device to which you want to cast."); https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1("2. At the top right, click More > Cast. 3. Choose the Chromecast device where you want to watch the content."); https://support.google.com/chromecast/answer/3265953?hl=en-GB&ref_topic=4602553. Examples of this functionality are illustrated in the following screenshots from a Chromecast-enabled computing device running at least the YouTube Music, Google Play Music, and YouTube apps:    Likewise, each Hub media player comprises instructions that, when executed by a Hub media player's processor, cause the Hub media player to, while operating in the first mode, display a representation of one or more Chromecast-enabled media players in a Chromecast-enabled playback system that are each (i) communicatively coupled to

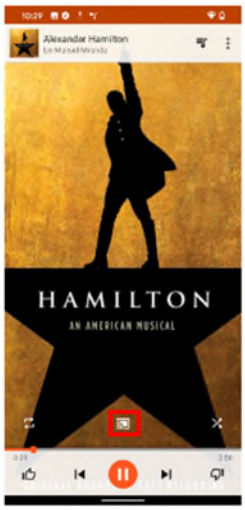
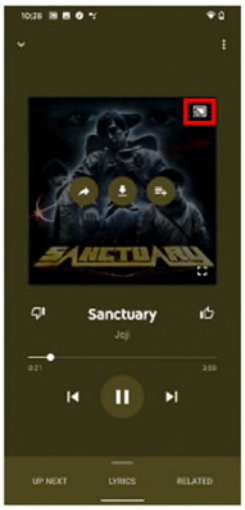
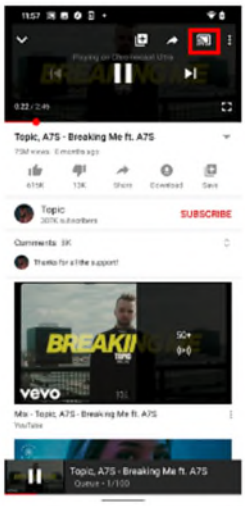
Claim: 1	Chromecast-Enabled Computing Devices
	the Hub media player over a data network and (ii) available to accept playback responsibility for the remote playback queue. For instance, each Hub media player is programmed such that, while operating in a mode in which the Hub media player is configured for playback of a remote playback queue provided by a Google cloud-based computing system associated with a cloud-based media service (e.g., Google Play Music, YouTube Music, YouTube, etc.), the Hub media player is operable to detect a selection of a displayed selectable option (e.g., a selectable "Cast button") for transferring playback of multimedia content from the Hub media player to another device, which triggers the Hub media player to display a list of available devices for transferring playback that includes one or more other Chromecast-enabled media players in a Chromecast-enabled playback system that are each (i) communicatively coupled to the Hub media player over a LAN and (ii) available to accept playback responsibility for the remote playback queue. *See, e.g.*, https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084 ("At the bottom-left corner of the screen, tap Devices to see the list of available devices and speaker groups. . . . Select the device for which you want to move your media."). Examples of this functionality are illustrated in the following screenshots from a Hub media player running at least the YouTube Music, Google Play Music, and YouTube apps:  
while displaying the representation of the one or more playback devices, receiving	Each Chromecast-enabled computing device comprises instructions that, when executed by a Chromecast-enabled computing device's processor, cause the Chromecast-enabled computing device to, while displaying the representation of the one or more Chromecast-enabled

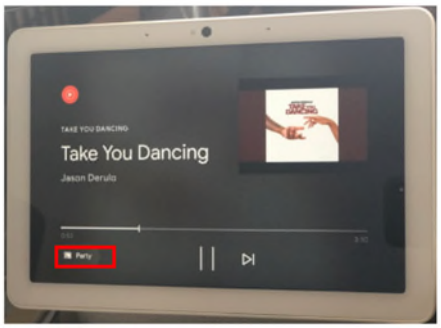
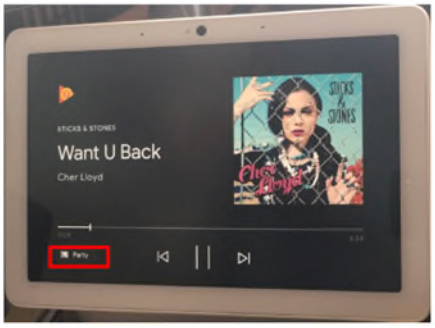
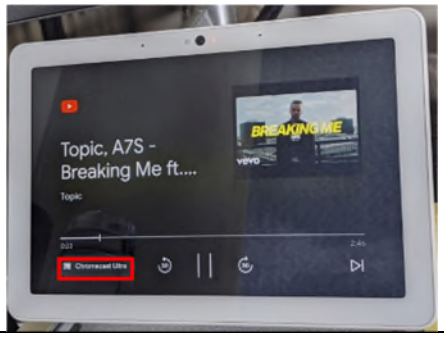
Claim: 1	Chromecast-Enabled Computing Devices
user input indicating a selection of at least one given playback device from the one or more playback devices;	media players, receive user input indicating a selection of at least one given Chromecast-enabled media player from the one or more Chromecast-enabled media players. For instance, each Chromecast-enabled computing device is programmed such that, while displaying the representation of the one or more Chromecast-enabled media players in a Chromecast-enabled playback system that are each on the same LAN as the Chromecast-enabled computing device and available to accept playback responsibility for the remote playback queue, the Chromecast-enabled computing device is configured to receive user input indicating a selection of at least one Chromecast-enabled media player in the Chromecast-enabled playback system. *See, e.g.*, https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084 ("Tap the speaker or display for which you'd like to cast."); https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en ("Select your Chromecast device from the device list."); https://support.google.com/chromecast/answer/2995235?hl=en-AU ("Tap the Chromecast device to which you want to cast."); https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1("Choose the Chromecast device where you want to watch the content."). Examples of this functionality are illustrated in the following screenshots from a Chromecast-enabled computing device running at least the YouTube Music, Google Play Music, and YouTube apps:    Likewise each Hub media player comprises instructions that, when executed by a Hub media player's processor, cause the Hub media

Claim: 1	Chromecast-Enabled Computing Devices
	player to, while displaying the representation of the one or more Chromecast-enabled media players, receive user input indicating a selection of at least one given Chromecast-enabled media player from the one or more Chromecast-enabled media players. For instance, each Hub media player is programmed such that, while displaying the representation of the one or more other Chromecast-enabled media players in a Chromecast-enabled playback system that are each on the same LAN as the Hub media player and available to accept playback responsibility for the remote playback queue, the Hub media player is configured to receive user input indicating a selection of at least one other Chromecast-enabled media player in the Chromecast-enabled playback system. *See, e.g.*, https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084 ("Select the device for which you want to move your media."). Examples of this functionality are illustrated in the following screenshots from a Hub media player:  
based on receiving the user input,	Each Chromecast-enabled computing device comprises instructions that, when executed by a Chromecast-enabled computing device's

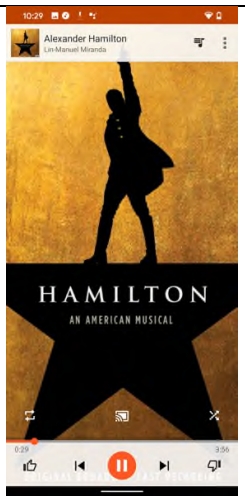
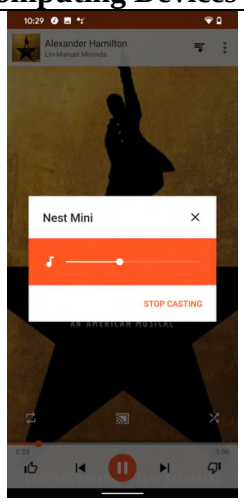
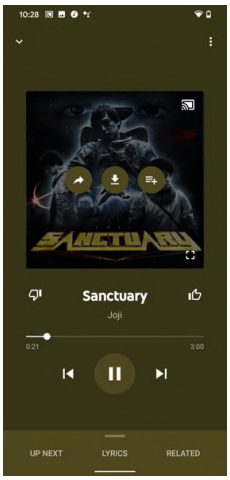
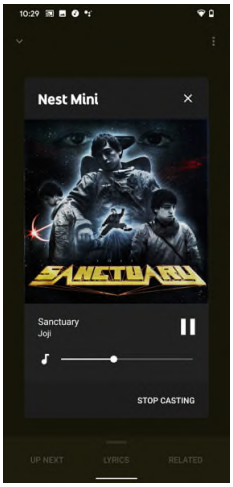
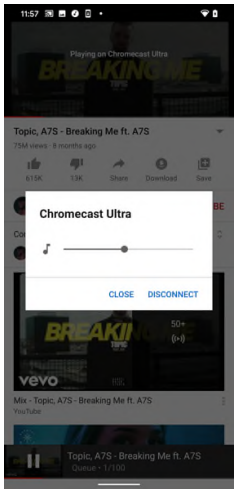
Claim: 1	Chromecast-Enabled Computing Devices
transmitting an instruction for the at least one given playback device to take over responsibility for playback of the remote playback queue from the computing device, wherein the instruction configures the at least one given playback device to (i) communicate 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;	processor, cause the Chromecast-enabled computing device to, based on receiving the user input, transmit an instruction for the at least one given Chromecast-enabled media player to take over responsibility for playback of the remote playback queue from the Chromecast-enabled computing device, wherein the instruction configures the at least one given Chromecast-enabled media player to (i) communicate with the Google 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 Google cloud-based media service; and (iii) play back the retrieved at least one media item. For instance, on information and belief, each Chromecast-enabled computing device is programmed such that, based on receiving the user input indicating a selection of at least one Chromecast-enabled media player in the Chromecast-enabled playback system that is on the same LAN as the Chromecast-enabled computing device and available to accept playback responsibility for the remote playback queue, the Chromecast-enabled computing device is configured to transmit an instruction for the Chromecast-enabled media player to take over responsibility for playback of the remote playback queue from the Chromecast-enabled computing device, where the instruction configures the Chromecast-enabled media player to (i) communicate with a Google cloud server associated with a Google cloud-based media service (e.g., Google Play Music, YouTube Music, YouTube, etc.) in order to obtain data identifying a next one or more media items that are in the remote playback queue (e.g., resource locators for such media items), (ii) use the obtained data to retrieve at least one media item in the remote playback queue from the Google cloud-based media service; and (iii) play back the retrieved at least one media item. *See, e.g.,* https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/chromecast/answer/2995235?hl=en-AU; https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1. Likewise each Hub media player comprises instructions that, when executed by a Hub media player's processor, cause the Hub media player to, based on receiving the user input, transmit an instruction for

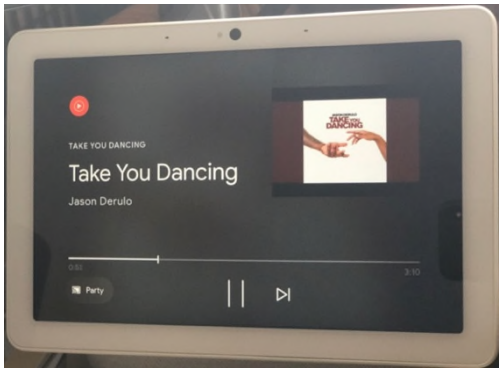
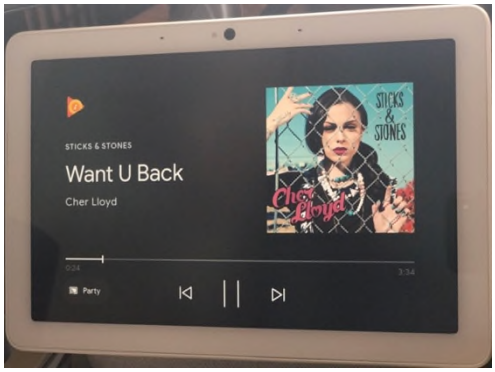
Claim: 1	Chromecast-Enabled Computing Devices
	the at least one given Chromecast-enabled media player to take over responsibility for playback of the remote playback queue from the Hub media player, wherein the instruction configures the at least one given Chromecast-enabled media player to (i) communicate with the Google 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 Google cloud-based media service; and (iii) play back the retrieved at least one media item. For instance, on information and belief, each Hub media player is programmed such that, based on receiving the user input indicating a selection of at least one other Chromecast-enabled media player in the Chromecast-enabled playback system that is on the same LAN as the Hub media player and available to accept playback responsibility for the remote playback queue, the Hub media player is configured to transmit an instruction for the other Chromecast-enabled media player to take over responsibility for playback of the remote playback queue from the Hub media player, where the instruction configures the other Chromecast-enabled media player to (i) communicate with a Google cloud server associated with a Google cloud-based media service (e.g., Google Play Music, YouTube Music, YouTube, etc.) in order to obtain data identifying a next one or more media items that are in the remote playback queue (e.g., resource locators for such media items), (ii) use the obtained data to retrieve at least one media item in the remote playback queue from the Google cloud-based media service; and (iii) play back the retrieved at least one media item. *See, e.g., id.*
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	Each Chromecast-enabled computing device comprises instructions that, when executed by a Chromecast-enabled computing device's processor, cause the Chromecast-enabled computing device to detect an indication that playback responsibility for the remote playback queue has been successfully transferred from the Chromecast-enabled computing device to the at least one given Chromecast-enabled media player. For instance, each Chromecast-enabled computing device is programmed with the capability to detect an indication that playback responsibility for the remote playback queue has been successfully transferred from the Chromecast-enabled computing device to at least one Chromecast-enabled media player, which is demonstrated by the fact that the Chromecast-enabled computing device displays an indicator that playback responsibility for the remote playback queue has been successfully transferred to the at least one Chromecast-enabled media player that takes the form of a "Cast button" that is

Claim: 1	Chromecast-Enabled Computing Devices
	"filled in" and/or "dark grey." *See, e.g.*, https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084 ("When you're connected, the Cast button will turn from light to dark grey, letting you know that you're connected."); https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1("To the right of the address bar, next to your extensions, you'll see Active cast ."); https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/chromecast/answer/2995235?hl=en-AU; https://support.google.com/chromecast/answer/3265953?hl=en-GB&ref_topic=4602553. Examples of a Chromecast-enabled computing device detecting an indication that playback responsibility for the remote playback queue has been successfully transferred from the Chromecast-enabled computing device to at least one Chromecast-enabled media player are illustrated in the following screenshots from a Chromecast-enabled computing device running at least the YouTube Music, Google Play Music, and YouTube apps:    Likewise, each Hub media player comprises instructions that, when executed by a Hub media player's processor, cause the Hub media player to detect an indication that playback responsibility for the remote playback queue has been successfully transferred from the Hub media player to the at least one given Chromecast-enabled media player. For instance, each Hub media player is programmed with the capability to detect an indication that playback responsibility for the

Claim: 1	Chromecast-Enabled Computing Devices
	remote playback queue has been successfully transferred from the Hub media player to at least one other Chromecast-enabled media player, which is demonstrated by the fact that the Chromecast-enabled computing device displays an indicator that playback responsibility for the remote playback queue has been successfully transferred to the at least one other Chromecast-enabled media player that takes the form of a "Cast button" that is "filled in" and/or has a "dark grey" color along with a display of the other Chromecast-enabled media player's name. *See, e.g.,* https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084. Examples of a selectable "Cast button" having this second visual appearance are illustrated in the following screenshots from a Hub media player running at least the YouTube Music, Google Play Music, and YouTube apps:   
after detecting the indication,	Each Chromecast-enabled computing device comprises instructions that, when executed by a Chromecast-enabled computing device's

Claim: 1	Chromecast-Enabled Computing Devices
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.	processor, cause the Chromecast-enabled computing device to, after detecting the indication, transition from (i) the first mode in which the Chromecast-enabled computing device is configured for playback of the remote playback queue to (ii) a second mode in which the Chromecast-enabled computing device is configured to control the at least one given Chromecast audio player's playback of the remote playback queue and the Chromecast-enabled computing device is no longer configured for playback of the remote playback queue. For instance, each Chromecast-enabled computing device is programmed such that, after detecting the indication that playback responsibility for the remote playback queue has been successfully transferred from the Chromecast-enabled computing device to at least one Chromecast-enabled media player in the Chromecast-enabled playback system that is on the same LAN as the Chromecast-enabled computing device, the Chromecast-enabled computing device is configured to transition from (i) the first mode in which the Chromecast-enabled computing device was configured for playback of the remote playback queue to (ii) a second mode in which the Chromecast-enabled computing device is configured to control the at least one Chromecast-enabled media player's playback of the remote playback queue (while the Chromecast-enabled computing device itself is no longer configured for playback of the remote playback queue). *See, e.g.,* https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/chromecast/answer/2995235?hl=en-AU; https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1; https://support.google.com/chromecast/answer/3265953?hl=en-GB&ref_topic=4602553. Examples of a Chromecast-enabled computing device in this second mode are illustrated in the following screenshots from a Chromecast-enabled computing device running at least the YouTube Music, Google Play Music, and YouTube apps:

Claim: 1	Chromecast-Enabled Computing Devices
	     Each Hub media player comprises instructions that, when executed by a Hub media player's processor, cause the Hub media player to, after detecting the indication, transition from (i) the first mode in which the

Claim: 1	Chromecast-Enabled Computing Devices
	Hub media player is configured for playback of the remote playback queue to (ii) a second mode in which the Hub media player is configured to control the at least one given Chromecast audio player's playback of the remote playback queue and the Hub media player is no longer configured for playback of the remote playback queue. For instance, each Hub media player is programmed such that, after detecting the indication that playback responsibility for the remote playback queue has been successfully transferred from the Hub media player to at least one other Chromecast-enabled media player in the Chromecast-enabled playback system that is on the same LAN as the Hub media player, the Hub media player is configured to transition from (i) the first mode in which the Hub media player was configured for playback of the remote playback queue to (ii) a second mode in which the Hub media player is configured to control the at least one other Chromecast-enabled media player's playback of the remote playback queue (while the Hub media player itself is no longer configured for playback of the remote playback queue). *See, e.g.*, https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084. Examples of a Hub media player in this second mode are illustrated in the following screenshots from a Hub media player running at least the YouTube Music, Google Play Music, and YouTube apps:  

Claim: 1	Chromecast-Enabled Computing Devices

95. On September 28, 2020, Sonos provided Google with a draft of this complaint prior to its filing. That draft identified the ’033 Patent and described how Google’s products infringed. Thus, Google had actual knowledge of Sonos’s allegation that Google infringed claims of the ’033 Patent prior to Sonos filing the complaint in this action.

96. Additionally and/or alternatively, Google has indirectly infringed and continues to indirectly infringe one or more of the claims of the ’033 Patent, in violation of 35 U.S.C. § 271(b), by actively inducing users of the Google Wireless Audio System to directly infringe the one or more claims of the ’033 Patent. In particular, (a) Google had actual knowledge of the ’033 Patent and Sonos’s infringement contentions, or was willfully blind to their existence, no later than September 28, 2020 when Sonos provided Google with a copy of the complaint (*see* ¶¶ 19-29 above), (b) Google intentionally causes, urges, or encourages users of the Google Wireless Audio System to directly infringe one or more claims of the ’033 Patent by promoting, advertising, and instructing customers and potential customers about the Google Wireless Audio System (including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement (*see* Exs. 22-27; *see also* citations above in the exemplary infringement claim chart for claim 1 of the ’033 Patent), (c) Google knows (or should know) that its actions will induce users of the Google Wireless Audio System to directly infringe one or more claims the ’033 Patent, and (d) users of the Google Wireless Audio System directly infringe one or more claims of the ’033 Patent. For instance, at a minimum, Google has supplied and continues to supply the YouTube Music, Google Play Music, and YouTube apps to customers

while knowing that installation and/or use of one or more of these apps will infringe one or more claims of the ’033 Patent, and that Google’s customers then directly infringe one or more claims of the ’033 Patent by installing and/or using one or more of these apps in accordance with Google’s product literature. *See*, e.g., *id*.

97. Additionally and/or alternatively, Google has indirectly infringed and continues to indirectly infringe one or more of the claims of the ’033 Patent, in violation of 35 U.S.C. § 271(c), by offering to sell or selling within the United States, and/or importing into the United States, components in connection with the Google Wireless Audio System that contribute to the direct infringement of the ’033 Patent by users of the Google Wireless Audio System. In particular, (a) Google had actual knowledge of the ’033 Patent and Sonos’s infringement contentions, or was willfully blind to their existence, no later than September 28, 2020 when Sonos provided Google with a copy of the complaint (*see* ¶¶ 19-29 above), (b) Google offers for sale, sells, and/or imports, in connection with the Google Wireless Audio System, one or more material components of the invention of the ’033 Patent that are not staple articles of commerce suitable for substantial noninfringing use, (c) Google knows (or should know) that such component(s) were especially made or especially adapted for use in an infringement of the ’033 Patent, and (d) users of devices that comprise such material component(s) directly infringe one or more claims of the ’033 Patent. For instance, at a minimum, Google offers for sale, sells, and/or imports the YouTube Music, Google Play Music, and YouTube apps for installation on devices (*e.g.*, smartphones, tablets, and computers) that meet one or more claims of the ’033 Patent. *See, e.g.*, Exs. 22-27. These apps are a material component of the devices that meet the one or more claims of the ’033 Patent. Further, Google especially made and/or adapted these apps for installation and use on devices that meet the one or more claims of the ’033 Patent, and these apps are not a staple article of commerce suitable for substantial noninfringing use. Google’s customers then directly infringe the one or more claims of the ’033 Patent by installing and/or using these apps on the customers’ devices.

98. Google’s infringement of the ’033 Patent is also willful because Google (a) had actual knowledge of the ’033 Patent and Sonos’s infringement contentions no later than

September 28, 2020 (*see* ¶¶ 19-29 above), (b) engaged in the aforementioned activity despite an objectively high likelihood that Google's actions constituted infringement of the '033 Patent, and (c) this objectively-defined risk was either known or so obvious that it should have been known to Google.

99. Additional allegations regarding Google's pre-suit knowledge of the '033 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

100. Sonos is entitled to recover from Google all damages that Sonos has sustained as a result of Google's infringement of the '033 Patent, including, without limitation, a reasonable royalty and lost profits.

101. Google's infringement of the '033 Patent was and continues to be willful and deliberate, entitling Sonos to enhanced damages.

102. Google's infringement of the '033 Patent is exceptional and entitles Sonos to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

103. Google's infringement of the '033 Patent has caused irreparable harm (including the loss of market share) to Sonos and will continue to do so unless enjoined by this Court.

COUNT III: INFRINGEMENT OF U.S. PATENT NO. 9,344,206

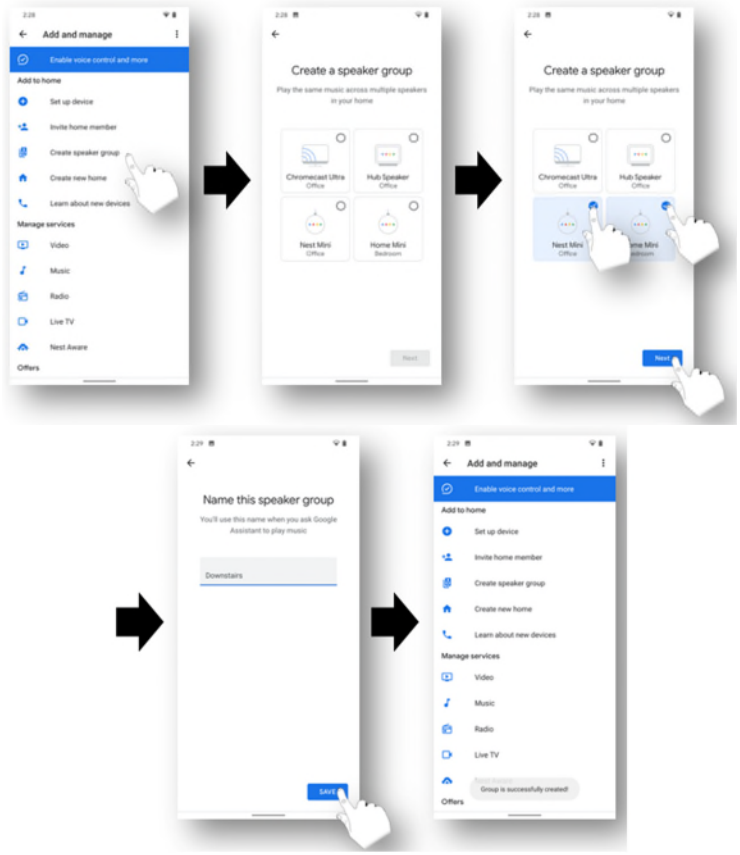
104. Sonos incorporates by reference and re-alleges paragraphs 1-79 of this Complaint as if fully set forth herein.

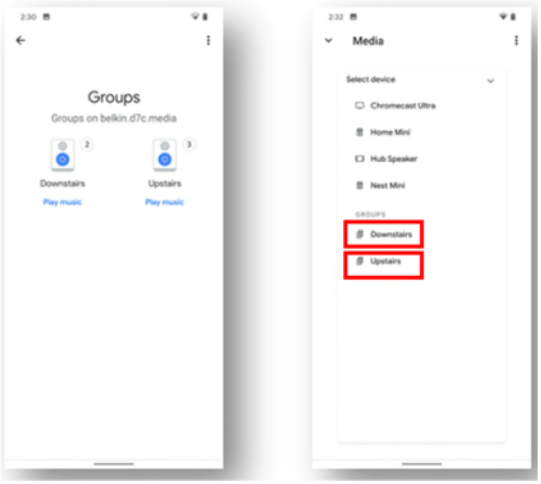
105. Google and/or users of the Google Wireless Audio System have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe one or more of the claims of the '206 Patent, in violation of 35 U.S.C. § 271(a), by making, using, offering for sale, and/or selling the Google Wireless Audio System within the United States and/or importing the Google Wireless Audio System into the United States without authority or license.

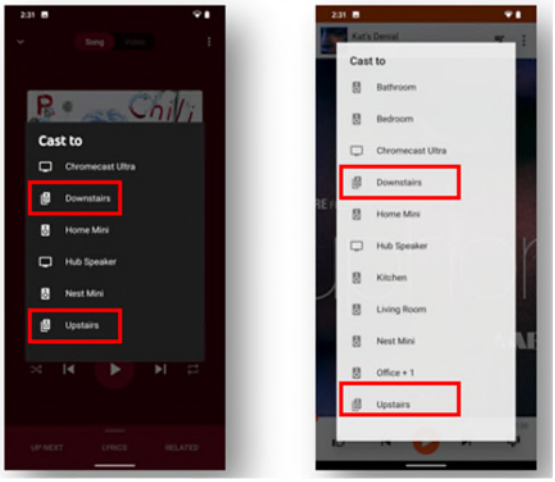
106. As just one non-limiting example, set forth below is an exemplary infringement claim chart for claim 1 of the '206 Patent in connection with the Google Wireless Audio System. This claim chart is based on publicly available information. Sonos reserves the right to modify

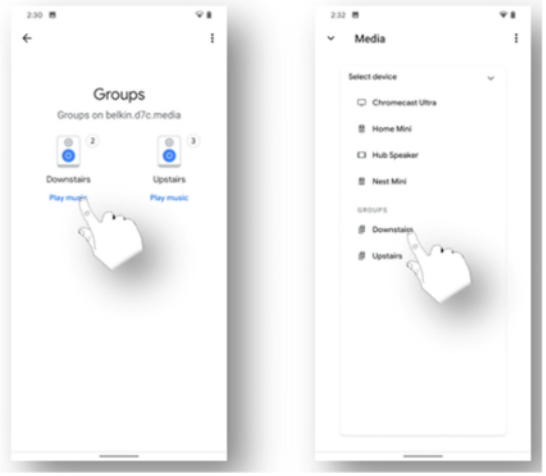
this claim chart, including, for example, on the basis of information about the Google Wireless Audio System that it obtains during discovery.

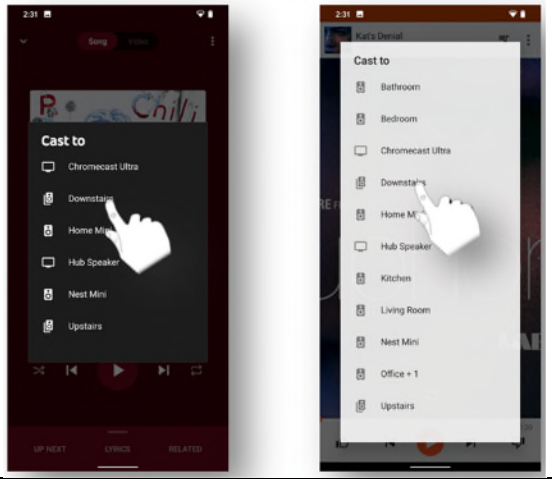
Claim: 1	Chromecast-Enabled Computing Devices
A multimedia controller including a processor, the controller configured to:	At least each smartphone, tablet, and computer installed with at least the Google Home app (where a computing device installed with at least the Google Home app is referred to herein as a "Chromecast-enabled computing device") comprises a "multimedia controller including a processor," as recited in claim 1. At least each Home Mini, Nest Mini, Home, Home Max, Home Hub, Nest Hub, Nest Hub Max, Nest Wifi Point, Chromecast, Chromecast Audio, Chromecast Ultra, Chromecast with Google TV, and Nest Audio ("Chromecast-enabled media player") is a data network device configured to process and output audio that is capable of playing multimedia separately from other Chromecast-enabled media players, and thus, comprises an "independent playback device" as recited in claim 1. *See, e.g.*, https://store.google.com/us/magazine/compare_pixel; https://store.google.com/us/product/google_pixelbook_specs; https://store.google.com/us/product/pixel_slate_specs; https://store.google.com/us/product/google_home_max?hl=en-US; https://store.google.com/us/product/google_home_max_partners?hl=en-US; https://play.google.com/store/apps/details?id=com.google.android.apps.chromecast.app&hl=en_US. In addition to being a "independent playback device" as recited in claim 1, each Home Hub, Nest Hub, and Nest Hub Max (referred to herein as a "Hub media player") is installed with Home/Nest Hub controller software such that the given Hub media player also comprises a "multimedia controller including a processor," as recited in claim 1. *See, e.g.*, https://store.google.com/us/product/google_nest_hub?hl=en-US#overview-modal-music; https://store.google.com/us/product/google_nest_hub_max?hl=en-US; https://support.google.com/googlenest/answer/9165738?hl=en-GB&ref_topic=7030084
receive, via a network interface, a zone configuration from a first independent playback device of a plurality of independent playback devices, wherein the zone	Each Chromecast-enabled computing device is configured to receive, via a network interface, a zone configuration from a first Chromecast-enabled media player of a plurality of Chromecast-enabled media players, where the zone configuration is configured via the Chromecast-enabled computing device, maintained at the first Chromecast-enabled media player, and characterizes one or more zone scenes that each identify a group configuration associated with two or more of the plurality of Chromecast-enabled media players.

Claim: 1	Chromecast-Enabled Computing Devices
configuration is configured via the controller and maintained at the first independent playback device, and wherein the zone configuration characterizes one or more zone scenes, each zone scene identifying a group configuration associated with two or more of the plurality of independent playback devices; and	For instance, each Chromecast-enabled computing device on a local area network ("LAN") is configured to facilitate creation of predefined "speaker group" comprising two or more Chromecast-enabled media players on the same LAN as the Chromecast-enabled computing device, which is "a zone scene identifying a particular group configuration." *See, e.g.,* https://support.google.com/googlenest/answer/7174267?co=GENIE.Platform%3DAndroid&hl=en (providing instructions on how to create "speaker groups"). One example of this functionality is illustrated by the following screenshots, which shows the creation of a predefined "Downstairs" "speaker group" that identifies a particular group configuration comprising the "Nest Mini" and "Home Mini" players:  Once the predefined "speaker group" identifying the particular group configuration has been created, a zone configuration characterizing this "speaker group" is maintained at one or more of the plurality Chromecast-enabled media players on the same LAN as the Chromecast-enabled computing device (e.g., one or more of the Chromecast-enabled media players included in the predefined "speaker group"). *See, e.g., id.*

Claim: 1	Chromecast-Enabled Computing Devices
	Thereafter, each Chromecast-enabled computing device and each Hub media player on the same LAN as the plurality of Chromecast-enabled media players is operable to receive the zone configuration characterizing the predefined "speaker group" from one or more of the plurality of Chromecast-enabled media players at various times – including in advance of a Chromecast-enabled computing device or Hub media player displaying the predefined "speaker group" as an available option for playback. *See, e.g.,* https://support.google.com/googlenest/answer/7174267?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/googlenest/answer/7030379?co=GENIE.Platform%3DAndroid&hl=en-GB; https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1. Examples of this functionality are illustrated by the following screenshots from a Chromecast-enabled computing device installed with at least the Google Home, Google Play Music and YouTube Music apps, which show a Chromecast-enabled computing device that has received a zone configuration characterizing a "Downstairs" "speaker group" and a "Upstairs" "speaker group": 

Claim: 1	Chromecast-Enabled Computing Devices
	 Notably, each Chromecast-enabled computing device and each Hub media player is programmed with the capability to display a predefined "speaker group" as an available option for playback regardless of whether the Chromecast-enabled computing device or Hub media player was used to create the predefined "speaker group" (and in fact, regardless of whether the Chromecast-enabled computing device or Hub media player was even powered up or on the same LAN as the plurality of Chromecast-enabled media players at the time that the "speaker group" was created), which demonstrates that each Chromecast-enabled computing device and each Hub media player receives a zone configuration characterizing a predefined "speaker group" from one or more of the Chromecast-enabled media players selected for inclusion in the "speaker group." *See e.g.*, https://support.google.com/googlenest/answer/7174267?co=GENIE.Platform%3DAndroid&hl=en. In this regard, to facilitate the above functionality, each Chromecast-enabled computing device and each Hub media player is programmed with the capability to receive, from one of the plurality of Chromecast-enabled media players, a zone configuration characterizing one or more zone scenes that each identify a respective group configuration comprising two or more of the plurality of Chromecast-enabled media players.
cause a selectable indication of the received zone configuration to be displayed, wherein the displayed selectable indication is selectable to cause	Each Chromecast-enabled computing device is configured to cause a selectable indication of the received zone configuration to be displayed, where the displayed selectable indication is selectable to cause one or more of the zone scenes to be invoked by two or more of the plurality of Chromecast-enabled media players. For instance, as noted above, each Chromecast-enabled computing device is programmed with the capability to (i) receive a zone

Claim: 1	Chromecast-Enabled Computing Devices
one or more of the zone scenes to be invoked by two or more of the plurality of independent playback devices.	configuration characterizing one or more zone scenes that each identify a respective group configuration comprising two or more of the plurality of Chromecast-enabled media players (*e.g.*, one or more "speaker groups"), and (ii) cause an indication of the received zone configuration to be displayed that is selectable to cause a particular zone scene (*e.g.*, a "speaker group") to be invoked by two or more of the plurality of Chromecast-enabled media players. *See, e.g.*, https://support.google.com/googlenest/answer/7174267?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/googlenest/answer/7030379?co=GENIE.Platform%3DAndroid&hl=en-GB; https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1. Examples of this functionality are illustrated by the following screenshots from a Chromecast-enabled computing device running at least the Google Home, Google Play Music and YouTube Music apps, which show an indication of a received zone configuration characterizing a "Downstairs" "speaker group" that is selectable to cause the "Downstairs" "speaker group" to be invoked by the Chromecast-enabled media players included in the "Downstairs" "speaker group": 

Claim: 1	Chromecast-Enabled Computing Devices
	

107. On September 28, 2020, Sonos provided Google with a draft of this complaint prior to its filing. That draft identified the ’206 Patent and described how Google’s products infringed. Thus, Google had actual knowledge of Sonos’s allegation that Google infringed claims of the ’206 Patent prior to Sonos filing the complaint in this action.

108. Additionally and/or alternatively, Google has indirectly infringed and continues to indirectly infringe one or more of the claims of the ’206 Patent, in violation of 35 U.S.C. § 271(b), by actively inducing users of the Google Wireless Audio System to directly infringe the one or more claims of the ’206 Patent. In particular, (a) Google had actual knowledge of the ’206 Patent or was willfully blind to its existence prior to, and no later than, October 2016 and had actual knowledge or was willfully blind to Sonos’s infringement allegations at least as early as September 28, 2020 when Sonos provided Google a copy of the complaint(*see* ¶¶ 19-29 above), (b) Google intentionally causes, urges, or encourages users of the Google Wireless Audio System to directly infringe one or more claims of the ’206 Patent by promoting, advertising, and instructing customers and potential customers about the Google Wireless Audio System (including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement (*see* Exs. 22-23; *see also* citations above in the exemplary infringement claim chart for claim 1 of the ’206 Patent), (c) Google knows (or should know) that its actions will induce users of the Google Wireless Audio System to directly infringe

one or more claims the ’206 Patent, and (d) users of the Google Wireless Audio System directly infringe one or more claims of the ’206 Patent. For instance, at a minimum, Google has supplied and continues to supply the Google Home app to customers while knowing that installation and/or use of this app will infringe one or more claims of the ’206 Patent, and that Google’s customers then directly infringe one or more claims of the ’206 Patent by installing and/or using this app in accordance with Google’s product literature. *See*, e.g., *id*.

109. Additionally and/or alternatively, Google has indirectly infringed and continues to indirectly infringe one or more of the claims of the ’206 Patent, in violation of 35 U.S.C. § 271(c), by offering to sell or selling within the United States, and/or importing into the United States, components in connection with the Google Wireless Audio System that contribute to the direct infringement of the ’206 Patent by users of the Google Wireless Audio System. In particular, (a) Google had actual knowledge of the ’206 Patent or was willfully blind to its existence prior to, and no later than, October 2016 and had actual knowledge or was willfully blind to Sonos’s infringement allegations at least as early as September 28, 2020 when Sonos provided Google a copy of the complaint (*see* ¶¶ 19-29 above), (b) Google offers for sale, sells, and/or imports, in connection with the Google Wireless Audio System, one or more material components of the invention of the ’206 Patent that are not staple articles of commerce suitable for substantial noninfringing use, (c) Google knows (or should know) that such component(s) were especially made or especially adapted for use in an infringement of the ’206 Patent, and (d) users of devices that comprise such material component(s) directly infringe one or more claims of the ’206 Patent. For instance, at a minimum, Google offers for sale, sells, and/or imports the Google Home app for installation on devices (*e.g.*, smartphones, tablets, and computers) that meet one or more claims of the ’206 Patent. *See, e.g.*, Exs. 22-23. This app is a material component of the devices that meet the one or more claims of the ’206 Patent. Further, Google especially made and/or adapted this app for installation and use on devices that meet the one or more claims of the ’206 Patent, and this app is not a staple article of commerce suitable for substantial noninfringing use.

Google's customers then directly infringe the one or more claims of the '206 Patent by installing and/or using the Google Home app on the customers' devices.

110. Google's infringement of the '206 Patent is also willful because Google (a) had actual knowledge of the '206 Patent no later than October 2016 and actual knowledge of Sonos's infringement contentions no later than September 28, 2020 (*see* ¶¶ 19-29 above), (b) engaged in the aforementioned activity despite an objectively high likelihood that Google's actions constituted infringement of the '206 Patent, and (c) this objectively-defined risk was either known or so obvious that it should have been known to Google.

111. Additional allegations regarding Google's pre-suit knowledge of the '206 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

112. Sonos is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '206 Patent.

113. Sonos is entitled to recover from Google all damages that Sonos has sustained as a result of Google's infringement of the '206 Patent, including, without limitation, a reasonable royalty and lost profits.

114. Google's infringement of the '206 Patent was and continues to be willful and deliberate, entitling Sonos to enhanced damages.

115. Google's infringement of the '206 Patent is exceptional and entitles Sonos to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

116. Google's infringement of the '206 Patent has caused irreparable harm (including the loss of market share) to Sonos and will continue to do so unless enjoined by this Court.

COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 10,469,966

117. Sonos incorporates by reference and re-alleges paragraphs 1-79 of this Complaint as if fully set forth herein.

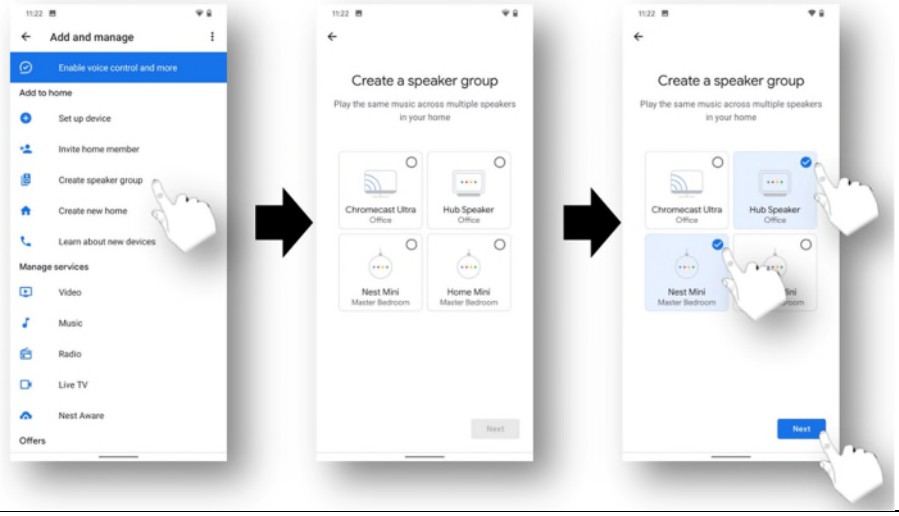
118. Google and/or users of the Google Wireless Audio System have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe one or more

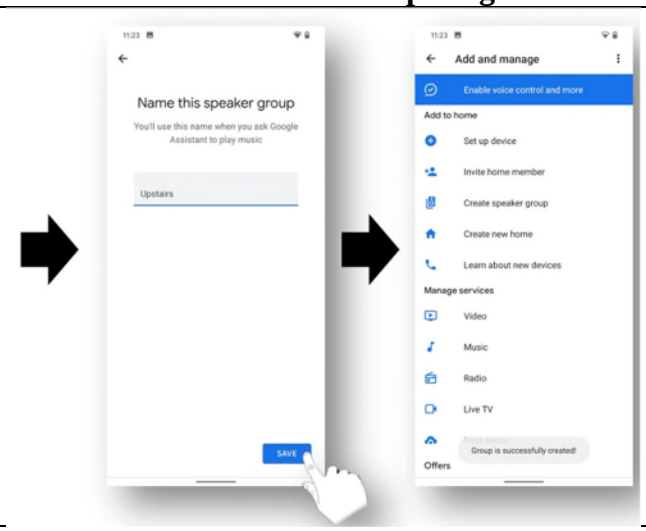
of the claims of the ’966 Patent, in violation of 35 U.S.C. § 271(a), by making, using, offering for sale, and/or selling the Google Wireless Audio System within the United States and/or importing the Google Wireless Audio System into the United States without authority or license.

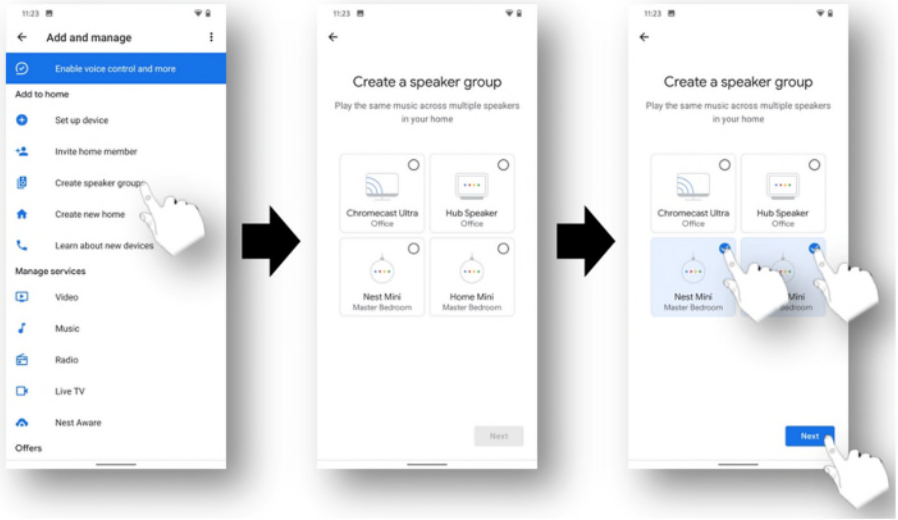
119. As just one non-limiting example, set forth below is an exemplary infringement claim chart for claim 1 of the ’966 Patent in connection with the Google Wireless Audio System. This claim chart is based on publicly available information. Sonos reserves the right to modify this claim chart, including, for example, on the basis of information about the Google Wireless Audio System that it obtains during discovery.

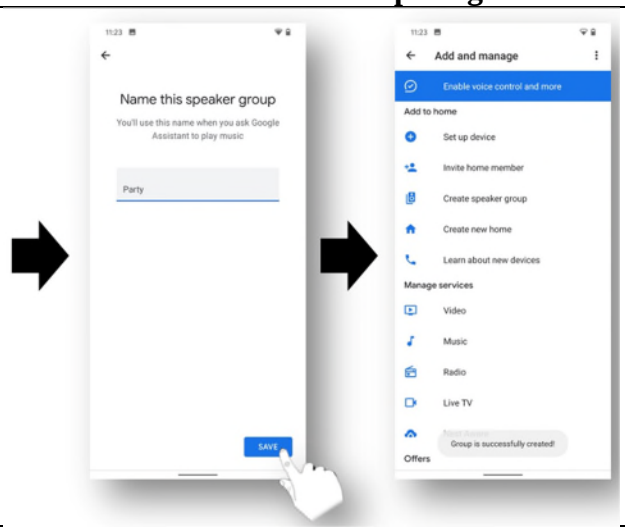
Claim: 1	**Chromecast-Enabled Computing Devices**
A computing device comprising:	At least each smartphone, tablet, and computer installed with at least the Google Home app (where a computing device installed with at least the Google Home app is referred to herein as a “Chromecast-enabled computing device”) comprises a “computing device,” as recited in claim 1. At least each Home Mini, Nest Mini, Home, Home Max, Home Hub, Nest Hub, Nest Hub Max, Nest Wifi Point, Chromecast, Chromecast Audio, Chromecast Ultra, Chromecast with Google TV, and Nest Audio (“Chromecast-enabled media player”) is a data network device configured to process and output audio, and thus, comprises a “zone player” as recited in claim 1. *See, e.g.*, https://store.google.com/us/magazine/compare_pixel; https://store.google.com/us/product/google_pixelbook_specs; https://store.google.com/us/product/pixel_slate_specs; https://store.google.com/us/product/google_home_max?hl=en-US; https://store.google.com/us/product/google_home_max_partners?hl=en-US; https://play.google.com/store/apps/details?id=com.google.android.apps.chromecast.app&hl=en_US.
one or more processors;	Each Chromecast-enabled computing device includes one or more processors. *See, e.g.*, https://store.google.com/us/magazine/compare_pixel; https://store.google.com/us/product/google_pixelbook_specs; https://store.google.com/us/product/pixel_slate_specs.
a non-transitory computer-readable medium; and	Each Chromecast-enabled computing device includes a non-transitory computer-readable medium. *See, e.g.*, https://store.google.com/us/magazine/compare_pixel; https://store.google.com/us/product/google_pixelbook_specs; https://store.google.com/us/product/pixel_slate_specs.

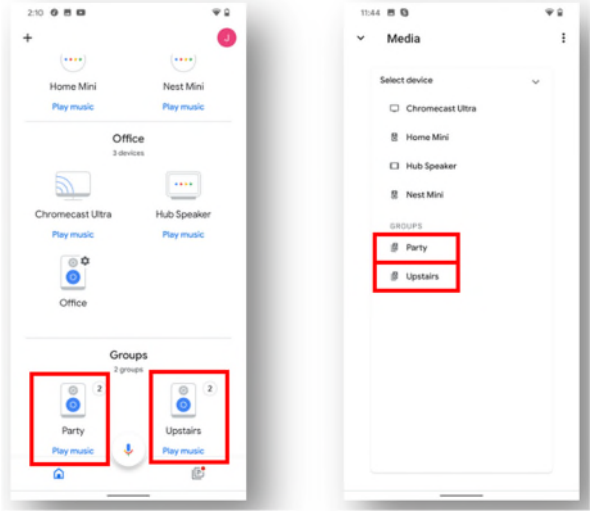
Claim: 1	Chromecast-Enabled Computing Devices
program instructions stored on the non-transitory computer-readable medium that, when executed by the one or more processors, cause the computing device to perform functions comprising:	Each Chromecast-enabled computing device includes program instructions stored on the non-transitory computer-readable medium that enable the Chromecast-enabled computing device to perform the functions identified below. *See, e.g.,* https://store.google.com/us/magazine/compare_pixel; https://store.google.com/us/product/google_pixelbook_specs; https://store.google.com/us/product/pixel_slate_specs.
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:	Each Chromecast-enabled computing device comprises program instructions that, when executed by a Chromecast-enabled computing device's one or more processors, cause that Chromecast-enabled computing device to, while serving as a Chromecast-enabled computing device for a Chromecast-enabled playback system comprising a first Chromecast-enabled media player and at least two other Chromecast-enabled media players, where the first Chromecast-enabled media player is operating in a standalone mode in which the first Chromecast-enabled media player is configured to play back media individually, perform the functions identified below. For instance, each Chromecast-enabled computing device is programmed with the capability to serve as a controller for a Chromecast-enabled playback system that includes a first Chromecast-enabled media player and at least two other Chromecast-enabled media players, where at least the first Chromecast-enabled media player is operating in a standalone mode (*i.e.*, the first Chromecast-enabled media player is not operating part of an established "cast session" with a "speaker group"). *See, e.g.,* https://support.google.com/googlenest/answer/7174267?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/googlenest/answer/7030379?co=GENIE.Platform%3DAndroid&hl=en-GB; https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1.
receiving a first request to create a first zone scene comprising a first predefined grouping of zone players	Each Chromecast-enabled computing device comprises program instructions that, when executed by a Chromecast-enabled computing device's one or more processors, cause that Chromecast-enabled computing device to receive a first request to create a first zone scene comprising a first predefined grouping of Chromecast-enabled media players including at least the first Chromecast-enabled media player

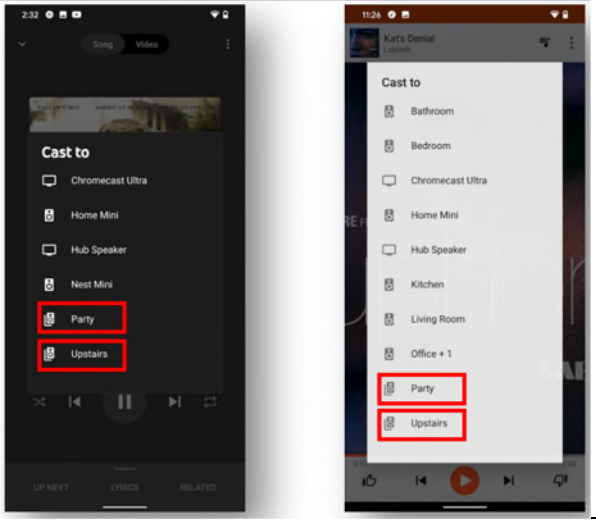
Claim: 1	Chromecast-Enabled Computing Devices
including at least the first zone player and a second zone player that are to be configured for synchronous playback of media when the first zone scene is invoked;	and a second Chromecast-enabled media player that are to be configured for synchronous playback of media when the first zone scene is invoked. For instance, each Chromecast-enabled computing device is programmed such that, while serving as a controller for a Chromecast-enabled playback system that includes a first Chromecast-enabled media player and at least two other Chromecast-enabled media players, the Chromecast-enabled computing device is operable to receive a request to create a first predefined "speaker group" that includes the first Chromecast-enabled media player and a second Chromecast-enabled media player in the Chromecast-enabled playback system that are to be configured for synchronous playback of media when the first "speaker group" is launched, which is a "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." *See, e.g.,* https://support.google.com/googlenest/answer/7174267?co=GENIE.Platform%3DAndroid&hl=en (providing instructions on how to create "speaker groups" for "synchronous music throughout the home"). One example of this functionality is illustrated by the following screenshots, which shows the creation of an "Upstairs" "speaker group" that includes the "Nest Mini" and "Hub Speaker" players: 

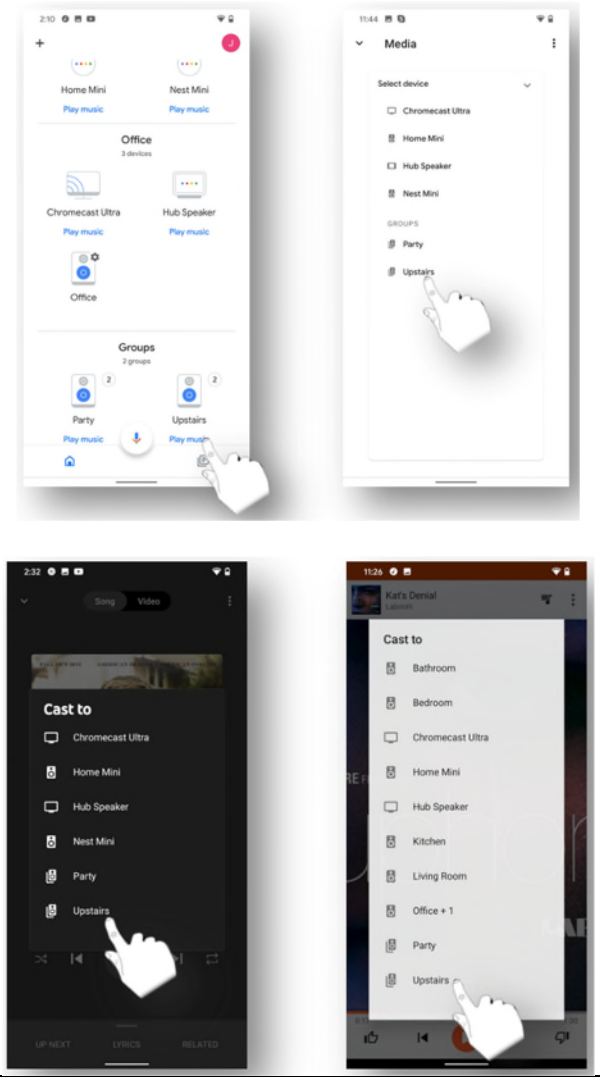
Claim: 1	Chromecast-Enabled Computing Devices
	
based on the first request, i) causing creation of the first zone scene, ii) causing an indication of the first zone scene to be transmitted to the first zone player, and iii) causing storage of the first zone scene;	Each Chromecast-enabled computing device comprises program instructions that, when executed by a Chromecast-enabled computing device's one or more processors, cause that Chromecast-enabled computing device to, based on the first request, (i) cause creation of the first zone scene, (ii) cause an indication of the first zone scene to be transmitted to the first Chromecast-enabled media player, and (iii) cause storage of the first zone scene. For instance, each Chromecast-enabled computing device is programmed such that, while serving as a controller for a Chromecast-enabled playback system that includes a first Chromecast-enabled media player and at least two other Chromecast-enabled media players, the Chromecast-enabled computing device is operable to receive a request to create a first predefined "speaker group" including the first Chromecast-enabled media player and a second Chromecast-enabled media player in the Chromecast-enabled playback system (which is the claimed "first zone scene") and then based on the request, (i) cause creation of the first "speaker group," (ii) cause an indication of the first "speaker group" to be transmitted to the first Chromecast-enabled media player, and (iii) cause storage of the first "speaker group" at one or more Chromecast-enabled media players. *See e.g.*, https://support.google.com/googlenest/answer/7174267?co=GENIE.Platform%3DAndroid&hl=en (providing instructions on how to create "speaker groups").
receiving a second request to create a second zone scene comprising a second predefined grouping of zone players	Each Chromecast-enabled computing device comprises program instructions that, when executed by a Chromecast-enabled computing device's one or more processors, cause that Chromecast-enabled computing device to receive a second request to create a second zone scene comprising a second predefined grouping of Chromecast-enabled media players including at least the first Chromecast-enabled

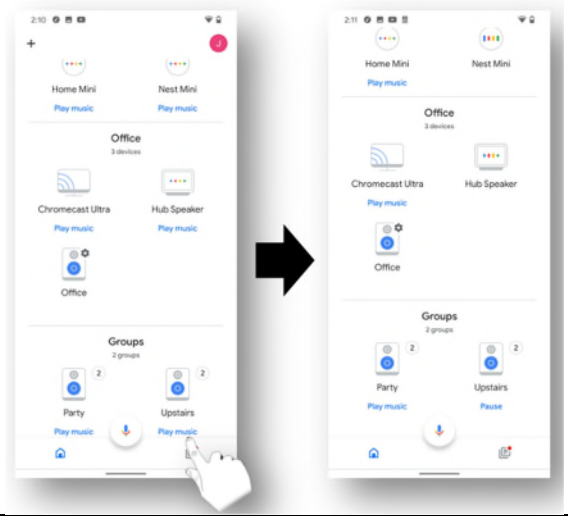
Claim: 1	Chromecast-Enabled Computing Devices
including at least the first zone player and a third zone player that are to be configured for synchronous playback of media when the second zone scene is invoked, wherein the third zone player is different than the second zone player;	media player and a third Chromecast-enabled media player that are to be configured for synchronous playback of media when the second zone scene is invoked, where the third Chromecast-enabled media player is different than the second Chromecast-enabled media player. For instance, each Chromecast-enabled computing device is programmed such that, while serving as a controller for a Chromecast-enabled playback system that includes a first Chromecast-enabled media player and at least two other Chromecast-enabled media players, the Chromecast-enabled computing device is configured to receive a request to create a first predefined "speaker group" that includes the first Chromecast-enabled media player and a third Chromecast-enabled media player that are to be configured for synchronous playback of media when the second "speaker group" is launched, which is a "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." *See, e.g.,* https://support.google.com/googlenest/answer/7174267?co=GENIE.Platform%3DAndroid&hl=en (providing instructions on how to create "speaker groups" for "synchronous music throughout the home"). One example of this functionality is illustrated by the following screenshots, which shows the creation of a "Party" "speaker group" that includes the "Nest Mini" and "Home Mini" players: 

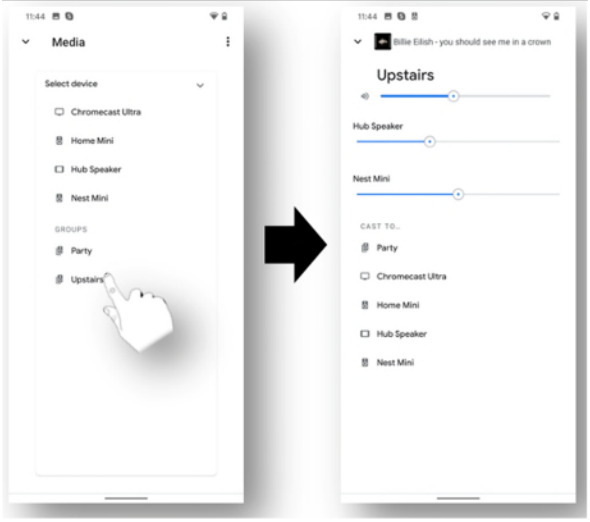
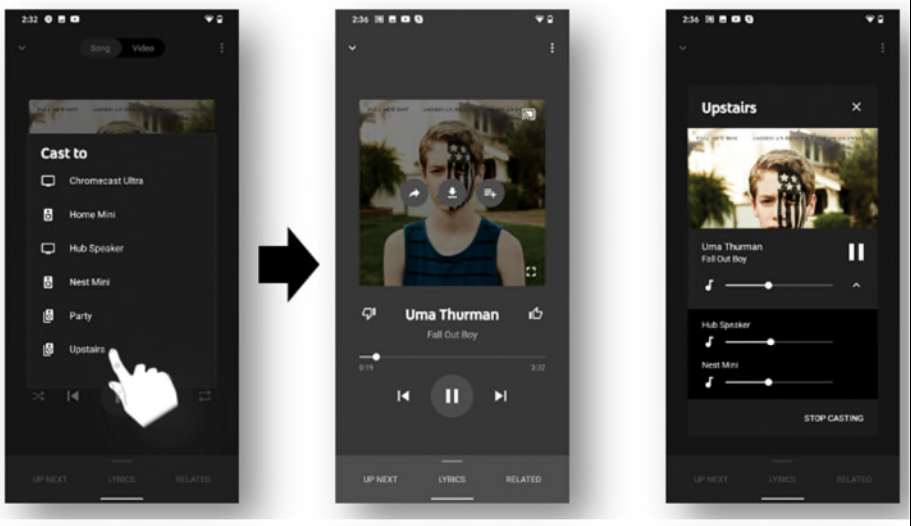
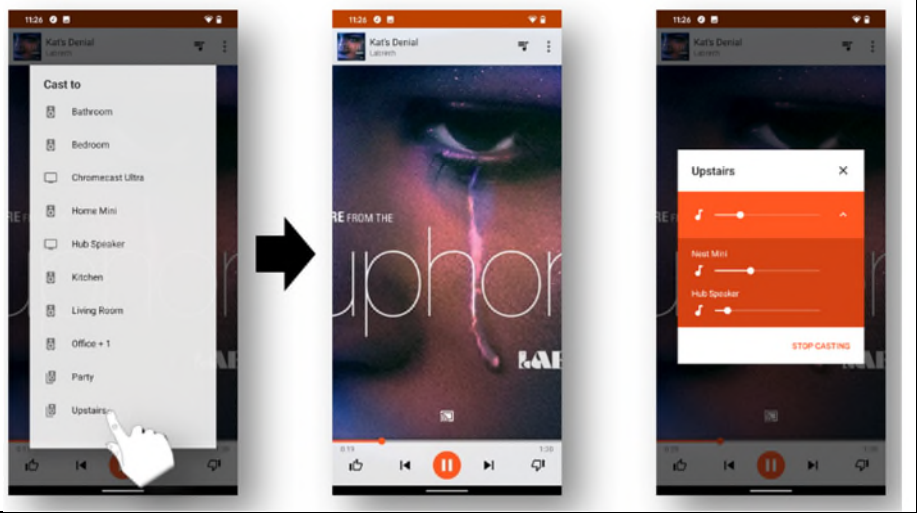
Claim: 1	Chromecast-Enabled Computing Devices
	
based on the second request, i) causing creation of the second zone scene, ii) causing an indication of the second zone scene to be transmitted to the first zone player, and iii) causing storage of the second zone scene;	Each Chromecast-enabled computing device comprises program instructions that, when executed by a Chromecast-enabled computing device's one or more processors, cause that Chromecast-enabled computing device to, based on the second request, (i) cause creation of the second zone scene, (ii) cause an indication of the second zone scene to be transmitted to the first Chromecast-enabled media player, and (iii) cause storage of the second zone scene. For instance, each Chromecast-enabled computing device is programmed such that, while serving as a controller for a Chromecast-enabled playback system that includes a first Chromecast-enabled media player and at least two other Chromecast-enabled media players, the Chromecast-enabled computing device is operable to receive a request to create a second predefined "speaker group" including the first Chromecast-enabled media player and a third Chromecast-enabled media player in the Chromecast-enabled playback system (which is the claimed "second zone scene") and then based on the request, (i) cause creation of the second "speaker group," (ii) cause an indication of the second "speaker group" to be transmitted to the first Chromecast-enabled media player, and (iii) cause storage of the second "speaker group" at one or more Chromecast-enabled media players. *See e.g.*, https://support.google.com/googlenest/answer/7174267?co=GENIE.Platform%3DAndroid&hl=en (providing instructions on how to create "speaker groups").
displaying a representation of the first zone scene and a representation of the second zone scene; and	Each Chromecast-enabled computing device comprises program instructions that, when executed by a Chromecast-enabled computing device's one or more processors, cause that Chromecast-enabled computing device to display a representation of the first zone scene and a representation of the second zone scene.

Claim: 1	Chromecast-Enabled Computing Devices
	For instance, each Chromecast-enabled computing device is programmed such that, while serving as a controller for a Chromecast-enabled playback system that includes a first Chromecast-enabled media player and at least two other Chromecast-enabled media players that are each, the Chromecast-enabled computing device is operable to display (i) a representation of a first predefined "speaker group" including the first Chromecast-enabled media player and a second Chromecast-enabled media player (which is the claimed "first zone scene"), and (ii) a representation of a second predefined "speaker group" including the first Chromecast-enabled media player and a third Chromecast-enabled media player (which is the claimed second zone scene"). *See, e.g.*, https://support.google.com/googlenest/answer/7174267?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/googlenest/answer/7030379?co=GENIE.Platform%3DAndroid&hl=en-GB; https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1. Examples of this functionality are illustrated by the following screenshots from a Chromecast-enabled computing device installed with at least the Google Home, Google Play Music, and YouTube Music apps, which show a displayed representation of the "Upstairs" "speaker group" that includes the "Nest Mini" and "Hub Speaker" players, and a displayed representation of the "Party" "speaker group" that includes the "Nest Mini" and "Home Mini" players: 

Claim: 1	Chromecast-Enabled Computing Devices
	
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	Each Chromecast-enabled computing device comprises program instructions that, when executed by a Chromecast-enabled computing device's one or more processors, cause that Chromecast-enabled computing device to, while displaying the representation of the first zone scene and the representation of the second zone scene, receive a third request to invoke the first zone scene. For instance, each Chromecast-enabled computing device is programmed such that, while displaying (i) a representation of a first predefined "speaker group" including the first Chromecast-enabled media player and a second Chromecast-enabled media player (which is the claimed "first zone scene"), and (ii) a representation of a second predefined "speaker group" including the first Chromecast-enabled media player and a third Chromecast-enabled media player (which is the claimed second zone scene"), the Chromecast-enabled computing device is operable to receive a request to launch the first "speaker group," which is a "request to invoke the first zone scene." *See, e.g.,* https://support.google.com/googlenest/answer/7174267?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/googlenest/answer/7030379?co=GENIE.Platform%3DAndroid&hl=en-GB; https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1. Examples of this functionality are illustrated by the following screenshots from a Chromecast-enabled computing device installed with at least the Google Home, Google Play Music, and YouTube

Claim: 1	Chromecast-Enabled Computing Devices
	Music apps, which show receipt of a request to launch the "Upstairs" "speaker pair": 
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	Each Chromecast-enabled computing device comprises program instructions that, when executed by a Chromecast-enabled computing device's one or more processors, cause that Chromecast-enabled computing device to, based on the third request, cause the first Chromecast-enabled media player to transition from operating in the standalone mode to operating in accordance with the first predefined grouping of Chromecast-enabled media players such that the first Chromecast-enabled media player is configured to coordinate with at least the second Chromecast-enabled media player to output media in synchrony with output of media by at least the second Chromecast-enabled media player.

Claim: 1	Chromecast-Enabled Computing Devices
coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player.	For instance, each Chromecast-enabled computing device is programmed such that, based on a request to launch a first "speaker group" (which is the claimed "third request to invoke the first zone scene"), the Chromecast-enabled computing device is operable to cause the first Chromecast-enabled media player to transition from operating in a standalone mode to operating in accordance with the first "speaker group" such that the first Chromecast-enabled media player is configured to coordinate with at least the second Chromecast-enabled media player to output audio in synchrony with the output of audio by the second Chromecast-enabled media player. *See, e.g.,* https://support.google.com/googlenest/answer/7174267?co=GENIE.Platform%3DAndroid&hl=en ("Group any combination of Google Nest or Google Home speakers and displays and Chromecast devices together for synchronous music throughout the home."). Examples of this functionality are illustrated by the following screenshots from a Chromecast-enabled computing device installed with at least the Google Home, Google Play Music, and YouTube Music apps, which show the "Upstairs" "speaker group" being launched such that the "Nest Mini" and "Hub Speaker" players are configured to coordinate with one another to play audio in synchrony: 

Claim: 1	Chromecast-Enabled Computing Devices
	  

120. On September 28, 2020, Sonos provided Google with a draft of this complaint prior to its filing. That draft identified the ’966 Patent and described how Google’s products infringed. Thus, Google had actual knowledge of Sonos’s allegation that Google infringed claims of the ’966 Patent prior to Sonos filing the complaint in this action.

121. Additionally and/or alternatively, Google has indirectly infringed and continues to indirectly infringe one or more of the claims of the ’966 Patent, in violation of 35 U.S.C. § 271(b), by actively inducing users of the Google Wireless Audio System to directly infringe the one or more claims of the ’966 Patent. In particular, (a) Google had actual knowledge of the ’966 Patent and Sonos’s infringement contentions, or was willfully blind to their existence, no later than September 28, 2020 when Sonos provided Google with a copy of the complaint (*see* ¶¶ 19-29 above), (b) Google intentionally causes, urges, or encourages users of the Google Wireless Audio System to directly infringe one or more claims of the ’966 Patent by promoting, advertising, and instructing customers and potential customers about the Google Wireless Audio System (including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement (*see* Exs. 22-23; *see also* citations above in the exemplary infringement claim chart for claim 1 of the ’966 Patent), (c) Google knows (or should know) that its actions will induce users of the Google Wireless Audio System to directly infringe one or more claims the ’966 Patent, and (d) users of the Google Wireless Audio System directly infringe one or more claims of the ’966 Patent. For instance, at a minimum, Google has supplied and continues to supply the Google Home app to customers while knowing that installation and/or use of this app will infringe one or more claims of the ’966 Patent, and that Google’s customers then directly infringe one or more claims of the ’966 Patent by installing and/or using this app in accordance with Google’s product literature. *See*, e.g., *id*.

122. Additionally and/or alternatively, Google has indirectly infringed and continues to indirectly infringe one or more of the claims of the ’966 Patent, in violation of 35 U.S.C. § 271(c), by offering to sell or selling within the United States, and/or importing into the United States, components in connection with the Google Wireless Audio System that contribute to the direct

infringement of the ’966 Patent by users of the Google Wireless Audio System. In particular, (a) Google had actual knowledge of the ’966 Patent and Sonos’s infringement contentions, or was willfully blind to their existence, no later than September 28, 2020 when Sonos provided Google with a copy of the complaint (*see* ¶¶ 19-29 above), (b) Google offers for sale, sells, and/or imports, in connection with the Google Wireless Audio System, one or more material components of the invention of the ’966 Patent that are not staple articles of commerce suitable for substantial noninfringing use, (c) Google knows (or should know) that such component(s) were especially made or especially adapted for use in an infringement of the ’966 Patent, and (d) users of devices that comprise such material component(s) directly infringe one or more claims of the ’966 Patent. For instance, at a minimum, Google offers for sale, sells, and/or imports the Google Home app for installation on devices (*e.g.*, smartphones, tablets, and computers) that meet one or more claims of the ’966 Patent. *See, e.g.*, Exs. 22-23. This app is a material component of the devices that meet the one or more claims of the ’966 Patent. Further, Google especially made and/or adapted this app for installation and use on devices that meet the one or more claims of the ’966 Patent, and this app is not a staple article of commerce suitable for substantial noninfringing use. Google’s customers then directly infringe the one or more claims of the ’966 Patent by installing and/or using the Google Home app on the customers’ devices.

123. Google’s infringement of the ’966 Patent is also willful because Google (a) had actual knowledge of the ’966 Patent and actual knowledge of Sonos’s infringement contentions no later than September 28, 2020 (*see* ¶¶ 19-29 above), (b) engaged in the aforementioned activity despite an objectively high likelihood that Google’s actions constituted infringement of the ’966 Patent, and (c) this objectively-defined risk was either known or so obvious that it should have been known to Google.

124. Additional allegations regarding Google’s pre-suit knowledge of the ’966 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

125. Sonos is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the ’966 Patent.

126. Sonos is entitled to recover from Google all damages that Sonos has sustained as a result of Google’s infringement of the ’966 Patent, including, without limitation, a reasonable royalty and lost profits.

127. Google’s infringement of the ’966 Patent was and continues to be willful and deliberate, entitling Sonos to enhanced damages.

128. Google’s infringement of the ’966 Patent is exceptional and entitles Sonos to attorneys’ fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

129. Google’s infringement of the ’966 Patent has caused irreparable harm (including the loss of market share) to Sonos and will continue to do so unless enjoined by this Court.

COUNT V: INFRINGEMENT OF U.S. PATENT NO. 9,219,460

130. Sonos incorporates by reference and re-alleges paragraphs 1-79 of this Complaint as if fully set forth herein.

131. Google and/or users of the Google Wireless Audio System have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe one or more of the claims of the ’460 Patent, in violation of 35 U.S.C. § 271(a), by making, using, offering for sale, and/or selling the Google Wireless Audio System within the United States and/or importing the Google Wireless Audio System into the United States without authority or license.

132. As just one non-limiting example, set forth below is an exemplary infringement claim chart for claim 15 of the ’460 Patent in connection with the Google Wireless Audio System. This claim chart is based on publicly available information. Sonos reserves the right to modify this claim chart, including, for example, on the basis of information about the Google Wireless Audio System that it obtains during discovery.

Claim: 15	Chromecast-Enabled Media Players
A playback device, comprising:	At least each Google Home Max and Nest Audio player (referred to herein as a “Chromecast-enabled media player”) comprises a “playback device,” as recited in claim 15.

Claim: 15	Chromecast-Enabled Media Players
a speaker;	Each of the foregoing Chromecast-enabled media players includes a speaker. *See, e.g.*, https://support.google.com/googlenest/answer/7072284?hl=en; https://store.google.com/us/product/google_home_max_specs_speaker?hl=en-US.
a microphone that is physically coupled to the speaker;	Each of the foregoing Chromecast-enabled media players includes a microphone that is physically coupled to the speaker. *See, e.g.*, https://support.google.com/googlenest/answer/7072284?hl=en; https://store.google.com/us/product/google_home_max_specs_speaker?hl=en-US.
a processor;	Each of the foregoing Chromecast-enabled media players includes a processor. *See, e.g.*, https://support.google.com/googlenest/answer/7072284?hl=en; https://store.google.com/us/product/google_home_max_specs_speaker?hl=en-US.
a network interface;	Each of the foregoing Chromecast-enabled media players includes a network interface, such as a WiFi interface. *See, e.g.*, https://support.google.com/googlenest/answer/7072284?hl=en; https://store.google.com/us/product/google_home_max_specs_speaker?hl=en-US.
a data storage; and a program logic stored in the data storage and executable by the processor to:	Each of the foregoing Chromecast-enabled media players includes a data storage and executable program logic stored in the data storage that enable each Chromecast-enabled media player to perform the functions identified below. *See, e.g.*, https://support.google.com/googlenest/answer/7072284?hl=en; https://store.google.com/us/product/google_home_max_specs_speaker?hl=en-US.
emit a first audio signal from the speaker;	Each of the foregoing Chromecast-enabled media players comprises program logic that, when executed by the Chromecast-enabled media player's processor, causes that Chromecast-enabled media player to emit a first audio signal from the speaker. For instance, each of the foregoing Chromecast-enabled media players is programmed with the capability to emit a first audio signal from one of its speakers to facilitate measuring the acoustics of a space surrounding the Chromecast-enabled media player. *See, e.g.*, https://support.google.com/googlenest/answer/7585574?hl=en ("Once you set up Max, Room EQ measures the acoustics of your space."); https://www.youtube.com/watch?v=UiBhshQ0FQA ("With Smart Sound, Google Home Max uses machine learning to automatically adjust the equalizer settings to match the acoustics of your room.").
detect, via the microphone, a second audio signal, wherein at least a portion of	Each of the foregoing Chromecast-enabled media players comprises program logic that, when executed by the Chromecast-enabled media player's processor, causes that Chromecast-enabled media player to detect, via its microphone, a second audio signal, wherein at least a

Claim: 15	Chromecast-Enabled Media Players
the second audio signal is a reflection of the first audio signal;	portion of the second audio signal is a reflection of the first audio signal. For instance, each of the foregoing Chromecast-enabled media players is programmed with the capability to detect, via its microphone, a second audio signal, where at least a portion of the second audio signal is a reflection of the first audio signal that was emitted to facilitate measuring the acoustics of a space surrounding the Chromecast-enabled media player. *See, e.g.,* https://support.google.com/googlenest/answer/7585574?hl=en ("Once you set up Max, Room EQ measures the acoustics of your space. . . . Note: The microphone must be on for Room EQ to work."); https://www.youtube.com/watch?v=UiBhshQ0FQA (disclosing that the Google Home Max "uses six internal microphones to measure the acoustics of your room.").
in response to the detecting, determine a first reflection characteristic based on at least the second audio signal;	Each of the foregoing Chromecast-enabled media players comprises program logic that, when executed by the Chromecast-enabled media player's processor, causes that Chromecast-enabled media player to, in response to the detecting, determine a first reflection characteristic based on at least the second audio signal. For instance, each of the foregoing Chromecast-enabled media players is programmed such that, in response to detecting a second audio signal comprising a reflection of a first audio signal that was emitted to facilitate measuring the acoustics of a space surrounding the Chromecast-enabled media player, the Chromecast-enabled media player is configured to determine one or more reflection characteristics based on at least the detected second audio signal. *See, e.g.,* https://support.google.com/googlenest/answer/7585574?hl=en ("Walls in a room can amplify the bass, leading to a muddled sound in which the bass overpowers the vocals of your music. Room EQ automatically corrects for this excess bass. This leads to a more balanced sound."); https://www.youtube.com/watch?v=UiBhshQ0FQA.
adjust an equalization setting of the playback device based on at least the first reflection characteristic; and	Each of the foregoing Chromecast-enabled media players comprises program logic that, when executed by the Chromecast-enabled media player's processor, causes that Chromecast-enabled media player to adjust the equalization setting of the Chromecast-enabled media player based on at least the first reflection characteristic. For instance, each of the foregoing Chromecast-enabled media players is programmed with the capability to adjust its equalization setting (e.g., a "bass" setting) based on one or more reflection characteristics. *See, e.g.,* https://support.google.com/googlenest/answer/7585574?hl=en

Claim: 15	Chromecast-Enabled Media Players
	("Room EQ automatically corrects for this excess bass. This leads to a more balanced sound."); https://www.youtube.com/watch?v=UiBhshQ0FQA ("With Smart Sound, Google Home Max uses machine learning to automatically adjust the equalizer settings to match the acoustics of your room.").
play, via the speaker, an audio track according to the equalization setting.	Each of the foregoing Chromecast-enabled media players comprises program logic that, when executed by the Chromecast-enabled media player's processor, causes that Chromecast-enabled media player to play, via its speaker, an audio track according to the equalization setting. For instance, each of the foregoing Chromecast-enabled media players is programmed with the capability to play, via one of its speakers, audio according to the equalization setting (e.g., "bass" setting) that was adjusted as described above. *See, e.g.*, https://support.google.com/googlenest/answer/7585574?hl=en ("Room EQ automatically corrects for this excess bass. This leads to a more balanced sound."); https://www.youtube.com/watch?v=UiBhshQ0FQA ("With Smart Sound, Google Home Max uses machine learning to automatically adjust the equalizer settings to match the acoustics of your room.").

133. On September 28, 2020, Sonos provided Google with a draft of this complaint prior to its filing. That draft identified the '460 Patent and described how Google's products infringed. Thus, Google had actual knowledge of Sonos's allegation that Google infringed claims of the '460 Patent prior to Sonos filing the complaint in this action.

134. Additionally and/or alternatively, Google has indirectly infringed and continues to indirectly infringe one or more of the claims of the '460 Patent, in violation of 35 U.S.C. § 271(b), by actively inducing users of the Google Wireless Audio System to directly infringe the one or more claims of the '460 Patent. In particular, (a) Google had actual knowledge of the '460 Patent or was willfully blind to its existence prior to, and no later than, January 2018 and had actual knowledge or was willfully blind to Sonos's infringement allegations at least as early as September 28, 2020 when Sonos provided Google a copy of the complaint (*see* ¶¶ 19-29 above), (b) Google intentionally causes, urges, or encourages users of the Google Wireless Audio System to directly infringe one or more claims of the '460 Patent by promoting, advertising, and instructing customers and potential customers about the Google Wireless Audio System

(including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement (*see* citations above in the exemplary infringement claim chart for claim 15 of the ’460 Patent; *see also* Ex. 42), (c) Google knows (or should know) that its actions will induce users of the Google Wireless Audio System to directly infringe one or more claims the ’460 Patent, and (d) users of the Google Wireless Audio System directly infringe one or more claims of the ’460 Patent. For instance, at a minimum, Google has supplied and continues to supply the Google Home Max and Nest Audio to customers while knowing that use of these products will infringe one or more claims of the ’460 Patent and that Google’s customers then directly infringe one or more claims of the ’460 Patent by using the Google Home Max and Nest Audio in accordance with Google’s product literature. *See, e.g.*, *id*.

135. Additionally and/or alternatively, Google has indirectly infringed and continues to indirectly infringe one or more of the claims of the ’460 Patent, in violation of 35 U.S.C. § 271(c), by offering to sell or selling within the United States, and/or importing into the United States, components in connection with the Google Wireless Audio System that contribute to the direct infringement of the ’460 Patent by users of the Google Wireless Audio System. In particular, (a) Google had actual knowledge of the ’460 Patent or was willfully blind to its existence prior to, and no later than, January 2018 and had actual knowledge or was willfully blind to Sonos’s infringement allegations at least as early as September 28, 2020 when Sonos provided Google a copy of the complaint (*see* ¶¶ 19-29 above), (b) Google offers for sale, sells, and/or imports, in connection with the Google Wireless Audio System, one or more material components of the invention of the ’460 Patent that are not staple articles of commerce suitable for substantial noninfringing use, (c) Google knows (or should know) that such component(s) were especially made or especially adapted for use in an infringement of the ’460 Patent, and (d) users of devices that comprise such material component(s) directly infringe one or more claims of the ’460 Patent. For instance, at a minimum, Google offers for sale, sells, and/or imports software updates for the Google Home Max and Nest Audio that meet one or more claims of the ’460 Patent. *See, e.g.*, Ex. 43. These software updates are material components of the Google Home Max and Nest

Audio that meet the one or more claims of the ’460 Patent. Further, Google especially made and/or adapted these software updates for installation and use on the Google Home Max and Nest Audio that meet the one or more claims of the ’460 Patent, and these software updates are not staple articles of commerce suitable for substantial noninfringing use. Google’s customers then directly infringe the one or more claims of the ’460 Patent by installing and using software updates on the Google Home Max and Nest Audio.

136. Google’s infringement of the ’460 Patent is also willful because Google (a) had actual knowledge of the ’460 Patent no later than January 2018 and actual notice of Sonos’s infringement contentions no later than September 28, 2020 (*see* ¶¶ 19-29 above), (b) engaged in the aforementioned activity despite an objectively high likelihood that Google’s actions constituted infringement of the ’460 Patent, and (c) this objectively-defined risk was either known or so obvious that it should have been known to Google.

137. Additional allegations regarding Google’s pre-suit knowledge of the ’460 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

138. Sonos is entitled to recover from Google all damages that Sonos has sustained as a result of Google’s infringement of the ’460 Patent, including, without limitation, a reasonable royalty and lost profits.

139. Google’s infringement of the ’460 Patent was and continues to be willful and deliberate, entitling Sonos to enhanced damages.

140. Google’s infringement of the ’460 Patent is exceptional and entitles Sonos to attorneys’ fees and costs incurred in prosecuting this action under 35 U.S.C. § 285. Google’s infringement of the ’460 Patent has caused irreparable harm (including the loss of market share) to Sonos and will continue to do so unless enjoined by this Court.

PRAYER FOR RELIEF

WHEREFORE, Sonos respectfully requests:

A. That Judgment be entered that Google has infringed at least one or more claims of the patents-in-suit, directly and/or indirectly, literally and/or under the doctrine of equivalents, and that such infringement is willful;

B. An injunction enjoining Google, its officers, agents, servants, employees and attorneys, and other persons in active concert or participation with Google, and its parents, subsidiaries, divisions, successors and assigns, from further infringement of the patents-in-suit.

C. An award of damages sufficient to compensate Sonos for Google's infringement under 35 U.S.C. § 284, including an enhancement of damages on account of Google's willful infringement;

D. That the case be found exceptional under 35 U.S.C. § 285 and that Sonos be awarded its reasonable attorneys' fees;

E. Costs and expenses in this action;

F. An award of prejudgment and post-judgment interest; and

G. Such other and further relief as the Court may deem just and proper.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Sonos respectfully demands a trial by jury on all issues triable by jury.

Respectfully submitted,

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