UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

SONOS, INC.,
Patent Owner.

Case No. IPR2026-00020
U.S. Patent No. 11,080,001

PATENT OWNER SONOS, INC.'S PRELIMINARY RESPONSE

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Exhibit	Description
2001	U.S. Patent No. 11,080,001 with Certificate of Correction

I. INTRODUCTION

The '001 Patent relates to core aspects of Sonos's acclaimed multiroom audio products, including synchronous playback of audio by multiple "zone players." Here, Sonos focuses on just one of the many substantive flaws in Google's Petition to clearly demonstrate why the Board should deny institution on the merits. That is, contrary to Google's contention, Janevski contains no teaching that a purported "*zone player*"[1] synchronously plays back "*audio information*" that it receives from another "*zone player*," as required by every challenged claim.

As background, the '001 Patent requires that a particular "*zone player*" of a "*synchrony group*" operates in both (a) a "*control-master mode*" or "*control-slave mode*" for the "*synchrony group*" and (b) an "*audio-master mode*" or "*audio-slave mode*" for the "*synchrony group*," where each such mode involves certain functionalities that facilitate synchronous playback of audio with other "*zone players*." This response focuses on the "*audio-slave mode*." A "*zone player*" in "*the audio-slave mode*" must be configured to "*engage in synchronous playback*" of "*audio information*" that the "*zone player*" receives "*from another zone player*."

[1] For clarity, claim language is presented in italics within quotation marks throughout.

Google's Petition relies exclusively on Janevski for supplying these requirements of a "*zone player*" in "*the audio-slave mode*." However, Janevski's purported "*zone player*" in "*the audio-slave mode*" never plays back any information received from another purported "*zone player*," whatsoever. Google's contention that Janevski's "information characteristic of content of a digital bit stream" amounts to the claimed "*audio information*" received by the "*zone player*" in "*the audio-slave mode*" fails for the straightforward reason that Janevski does not (and could not logically) teach any purported "*zone player*" playing back "information characteristic of content of a digital bit stream."

Since this deficiency arises in Google's theory for the independent claims, it pervades each claim that Google challenges. Accordingly, the Petition fails to demonstrate a reasonable likelihood that Google would prevail with respect to any of the challenged claims of the '001 Patent and should therefore be denied.

II. OVERVIEW OF THE '001 PATENT

The '001 Patent stems from Sonos's foundational non-provisional patent filing on April 1, 2004. *See* Ex.2001,[2] code (63). The '001 Patent discloses and claims core aspects of Sonos's acclaimed multiroom commercial products that were

[2] Google's copy of the '001 Patent (i.e., Ex.1001) omits the Certificate of Correction issued by the USPTO on August 13, 2024 that corrected certain claim language.

first released in January 2005, numerous years before the industry would eventually attempt to catch up to Sonos's innovative product offering. In particular, the '001 Patent discloses and claims aspects of Sonos's synchronous audio playback technology developed by inventor, Nicholas Millington.

As explained in the '001 Patent, Mr. Millington recognized that it is "desirable to maintain synchrony of operations among a plurality of independently-clocked digital data processing devices in relation to, for example, information that is provided thereto by a common source." *Id.*, 1:49-52. For example, in systems where audio information for the same audio program is provided to a plurality of independently-clocked "audio playback devices" that are distributed throughout a residence, an office, or the like, it is desirable for the playback devices to play back the same audio in synchrony. *Id.*, 1:52-2:13. However, Mr. Millington recognized that playing back the same audio on multiple playback devices in synchrony presents several challenges.

One challenge is that "[s]mall differences" in the devices' "start times and/or playback speeds can be perceived by a listener as an echo effect, and larger differences can be very annoying." *Id.*, 2:14-16. Mr. Millington recognized that these "[d]ifferences can arise because [of] a number of reasons, including delays in the transfer of audio information over the network" and further that "[s]uch delays can differ as among the various audio playback devices for a variety of reasons,

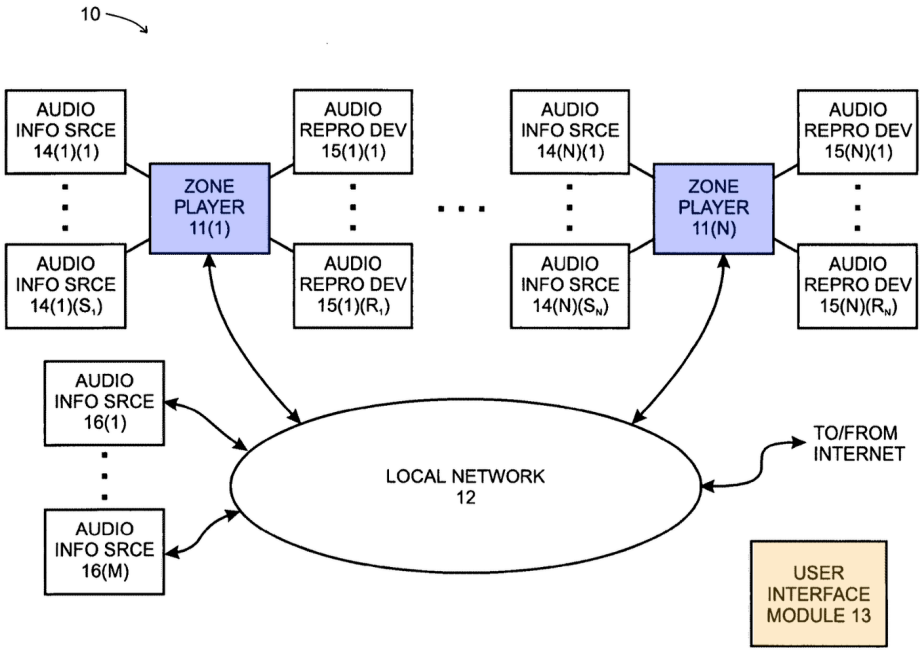
including where they are connected into the network, message traffic and other reasons…." *Id.*, 2:17-24.

Another challenge is that "[w]hen an audio playback device converts the digital audio information from digital to analog form, it does so using a clock that provides timing information," and "[g]enerally, the audio playback devices that are being developed have independent clocks…." *Id.*, 2:25-32. In operation, such independently-clocked playback devices cannot be expected to "clock[] at precisely the same rate…." *Id.*, 2:29-30. And as a result, such playback devices could not play back audio in synchrony. *Id.*, 2:30-32.

To overcome these challenges, Mr. Millington developed technology "for synchronizing operations among a number of digital data processing devices that are regulated by independent clocking devices" with the invention being "described in connection with a plurality of audio playback devices that receive digital audio information that is to be played back in synchrony…." *Id.*, 2:36-44.

For instance, the '001 Patent discloses a "network audio system" comprising "digital data processing devices" that connect to a data network and are configured to process and output audio. *Id.*, 2:36-39, 3:48-55. The specification refers to these "digital data processing devices" as "zone players" or "playback devices." *Id.*, 2:42-44, 3:50-55.

Figure 1 of the ’001 Patent provides an illustration of an example of this “network audio system”:



F I G. 1

Id., FIG. 1 (annotated). In this “network audio system,” each “zone player” (in blue, above) is configured to communicate over a “local network” with various other devices, including one or more other “zone players” and one or more “user interface modules” (in orange, above). *Id.*, 3:48-55.

Each “user interface module” (or controller) is configured to control the “zone players” in the “network audio system” over the “local network” and generally enables a user to interact with the “network audio system,” such as by allowing the user to “establish[] and modif[y] dynamically” “synchrony groups” within the “network audio system.” *Id.*, 5:40-6:41. The ’001 Patent explains that two or more

"zone players" can enter into a "synchrony group" for purposes of playing the same audio program synchronously. *Id.*, 5:61-6:18.

Mr. Millington recognized it may be desirable to "avoid requiring a dedicated device as the master device" for a "synchrony group." *Id.*, 32:16-18. For example, the '001 Patent explains that different factors, such as networking state, processing load, and the audio source selected for the "synchrony group," may necessitate flexibility in what "zone player" is responsible for certain functionalities for the "synchrony group" at any given time. *E.g.*, *id.*, 9:47-56, 10:60-11:4, 13:32-36, 15:56-63.

To enable this flexibility, the '001 Patent describes "zone players" operating in different modes in connection with a given "synchrony group." *E.g.*, *id.*, 6:58-7:38, 8:2-9:9, 19:37-43. In example embodiments, the '001 Patent describes different operating modes including (a) master and slave modes in the context of controlling playback actions within the "synchrony group" and (b) master and slave modes in the context of managing audio information for the "synchrony group." *E.g.*, *id.*, 6:58-7:38, 8:2-9:9, 19:37-43.

In the context of controlling playback actions within the "synchrony group," the "zone player" operating in a control-master mode (often labeled "master device 21" in the '001 specification) is primarily responsible for interfacing with any controller ("user interface module 13") on behalf of the "synchrony group" and

facilitating control of playback actions by the "zone players" of the "synchrony group." *Id.*, 8:31-35, 9:5-36. In turn, a "zone player" of a "synchrony group" operating in a control-slave mode (often labeled "slave device 22" in the '001 specification) abides by the instructions provided by the "zone player" operating in the control-master mode to perform playback actions. *Id.*, 8:31-35, 9:5-36, 12:58-13:21.

Moreover, in the context of managing audio information for the "synchrony group," the "zone player" operating in an audio-master mode (often labeled "audio information channel device 23" in the '001 specification) is responsible for obtaining audio information from an audio information source and then providing to any "zone player" of the "synchrony group" operating in an audio-slave mode (often the "master device 21" and/or "slave device 22" in the '001 specification) the audio information and "playback timing information" that indicates when the audio information is to be played back. *Id.*, 3:1-19, 8:14-26, 11:34-40, 20:55-21:1. The "zone players" of the "synchrony group" are able to playback the same audio program synchronously based on, *inter alia*, the audio information and "playback timing information" provided by the "zone player" operating in the audio-master mode. *Id.*, 8:20-26, 12:1-13, 23:26-25:57.

In many cases, a single "zone player" of a "synchrony group" operates in both (a) a control-master or control-slave mode and (b) an audio-master or audio-slave

mode. *E.g.*, *id.*, 8:2-13, 8:56-64, 10:8-12, 12:40-42, 12:47-49, 18:65-19:5, 22:11-13, 24:6-8. But in some cases, a "zone player" can operate in an audio-master mode for a "synchrony group" and that "zone player" may or may not also operate within the "synchrony group" in a control-master or control-slave mode. *E.g.*, *id.*, 9:47-55, 14:6-10, 15:33-39, FIG. 2A. This latter situation may arise if, for example, the selected audio information source for the "synchrony group" is an audio information source (e.g., a record player/turntable or the like) directly connected to a "zone player" that was already a member of another "synchrony group." *Id.*, 9:47-55, 10:8-31, 15:45-50.

The claims of the '001 Patent focus on embodiments where a single "*zone player*" of a "*synchrony group*" comprising at least one other "*zone player*" operates in both (a) a "*control-master mode*" or "*control-slave mode*" for the "*synchrony group*" and (b) an "*audio-master mode*" or "*audio-slave mode*" for the "*synchrony group*."

III. OVERVIEW OF THE PETITION

The Petition challenges claims 1-3, 6-14, 17-25, and 28-33 of the '001 Patent. Pet., 1. Claims 1, 12, and 23 are independent claims. Claim 1 is illustrative and recites:[3]

> [1preamble] A method performed by a first zone player, the method comprising:
>
> [1a] receiving, via a network interface at the first zone player, a request to engage in synchronous playback of audio content as part of a synchrony group that includes at least a second zone player that is communicatively coupled to the first zone player via at least one data network;
>
> [1b] after receiving the request to engage in synchronous playback of audio content as part of the synchrony group:[4]
>
> > [1ci] detecting an indication that the first zone player is to operate in (a) one of a control-master mode or a control-slave mode for the synchrony group [1cii] and (b) one of an audio-master mode or an audio-slave mode for the synchrony group; and
> >
> > [1d] beginning to operate in the synchrony group in accordance with the indication;
>
> [1e] wherein, while operating in the control-master mode for the synchrony group, the first zone player is configured to:

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[3] For ease of reference only, Sonos adopts Google's labeling convention for the elements of independent claim 1.

[4] *See* Certificate of Correction, 1.

receive, via the network interface, first control information for the synchrony group from a network device that is communicatively coupled to the first zone player; and

[1f] based on the first control information, cause, via the network interface, at least one playback action to be applied in the synchrony group;

[1g] wherein, while operating in the control-slave mode for the synchrony group, the first zone player is configured to:

receive, via the network interface, second control information from another zone player; and

[1h] perform one or more playback actions in accordance with the second control information;

[1i] wherein, while operating in the audio-master mode for the synchrony group, the first zone player is configured to:

obtain audio information that is representative of the audio content;

[1j] generate playback timing information associated with the obtained audio information that is indicative of at least one future time relative to a reference clock time that denotes a time at which at least the first and second zone players are to engage in synchronous playback of a corresponding portion of the obtained audio information; and

[1k] transmit, via the network interface, the obtained audio information and the generated playback timing information to the second zone player; and

[1l] wherein, while operating in the audio-slave mode for the synchrony group, the first zone player is configured to:

> receive, via the network interface, audio information and playback timing information associated with the received audio information from another zone player; and
>
> [1m] engage in synchronous playback of the received audio information with at least the second zone player based on the received playback timing information associated with the received audio information while a local clock time of the first zone player differs from a local clock time of the second zone player.

Independent claims 12 and 23 recite similar subject matter. Pet., 52-56.

For the independent claims, the Petition advances a single ground of obviousness based on the combination of Janevski, Kawamura, and Okamura. Pet., 1. With respect to limitations [1l] and [1m], the Petition relies on the combination of Janevski and Okamura. Pet., 46-52.

Sonos's present response focuses on the Petition's analysis of claim limitations [1l] and [1m] and thus, those limitations warrant further elaboration. As shown above, limitations [1l] and [1m] specify how the claimed "*first zone player*" is configured "*while operating in [an] audio-slave mode for [a] synchrony group*."

In particular, limitation [1l] requires the "*first zone player*" "*operating in the audio-slave mode for the synchrony group*" to be configured to "*receive… audio information and playback timing information associated with the received audio information from another zone player*." In other words, the "*first zone player*" in

"*the audio-slave mode*" must be configured to receive two different forms of information from "*another zone player*": (1) "*audio information*" and (2) "*playback timing information*" associated with the audio information.

In the Petition, Google maps Janevski's "information characteristic of content of a digital bit stream" (i.e., what Janevski labels a "query signature") within a "status message" as the received "*audio information*" of limitation [1l]. Pet., 46-47; Janevski, 10:28-30. As explained below, Google mapping the claimed "*audio information*" to Janevski's "information characteristic of content of a digital bit stream" (i.e., a "query signature") is fatal to the Petition. For the remainder of limitation [1l], Google concedes that "Janevski does not teach playback timing information as taught by the '001 patent" (Pet., 47) and instead, relies on Okamura to fill the gap for the claimed "*playback timing information*" that the "*first zone player*" in "*the audio-slave mode*" receives. *Id*.

Next, limitation [1m] requires the "*first zone player*" "*operating in the audio-slave mode for the synchrony group*" to be configured to "*engage in synchronous playback of the received audio information with at least [a] second zone player based on the received playback timing information associated with the received audio information while a local clock time of the first zone player differs from a local clock time of the second zone player*." Thus, limitation [1m] requires the "*first zone player*" in "*the audio-slave mode*" to be configured to (i) "*engage in synchronous*

playback of the received audio information" from limitation [1l] with at least "*the second zone player*" and do so (ii) "*based on the received playback timing information associated with the received audio information*" and (iii) "*while a local clock time of the first zone player differs from a local clock time of the second zone player*."

In the Petition, Google relies on Janevski as supplying limitation [1m] subpart (i). Pet., 48-49. As for limitation [1m] subparts (ii) and (iii), Google contends "Janevski does not disclose that the zone players operate with different local clock times or how synchronization is achieved in such a scenario" (Pet., 49) and turns back to Okamura to fill the gaps for these subparts. Pet., 49-51 ("Thus, Okamura teaches engaging in synchronous playback based on received timing information while local clock times differ, satisfying the remainder of [1m].").

In sum, considering limitations [1l] and [1m] together in their overall context, it is clear that the "*first zone player*" in "*the audio-slave mode*" must be configured to "*engage in synchronous playback*" of "*the audio information*" that the "*first zone player*" receives "*from another zone player*." Further, the Petition is clear that Google's theory is premised on Janevski alone supplying these requirements of limitations [1l] and [1m].

IV. GOOGLE'S RELIANCE ON JANEVSKI IS FATALLY FLAWED

The Petition fails to show a reasonable likelihood of prevailing on at least

limitations [1l] and [1m]. Below, as in the Petition, Sonos discusses Janevski's deficiencies using independent claim 1 as being representative.

A. Overview of Janevski

Janevski is generally directed to "digital image playback" and more particularly to "techniques for synchronizing playback of two or more digital streams based on renderable content of those streams." Janevski, 1:8-11. Janevski describes its synchronization techniques in the context of "personal video recorders," or "PVRs" for short. *Id*., 1:13-14, 5:3-5, 6:4-25.

In general, a "PVR" is a video recording device that can record certain video content (such as a user's favorite television program) and then render the recorded content on a television so that it can be watched by a user at a later point in time (i.e., enable "time-shifted viewing"). *Id*., 1:13-28, 5:3-5, 6:25-39. Janevski's PVR is illustrated in FIG. 2, which is reproduced below:

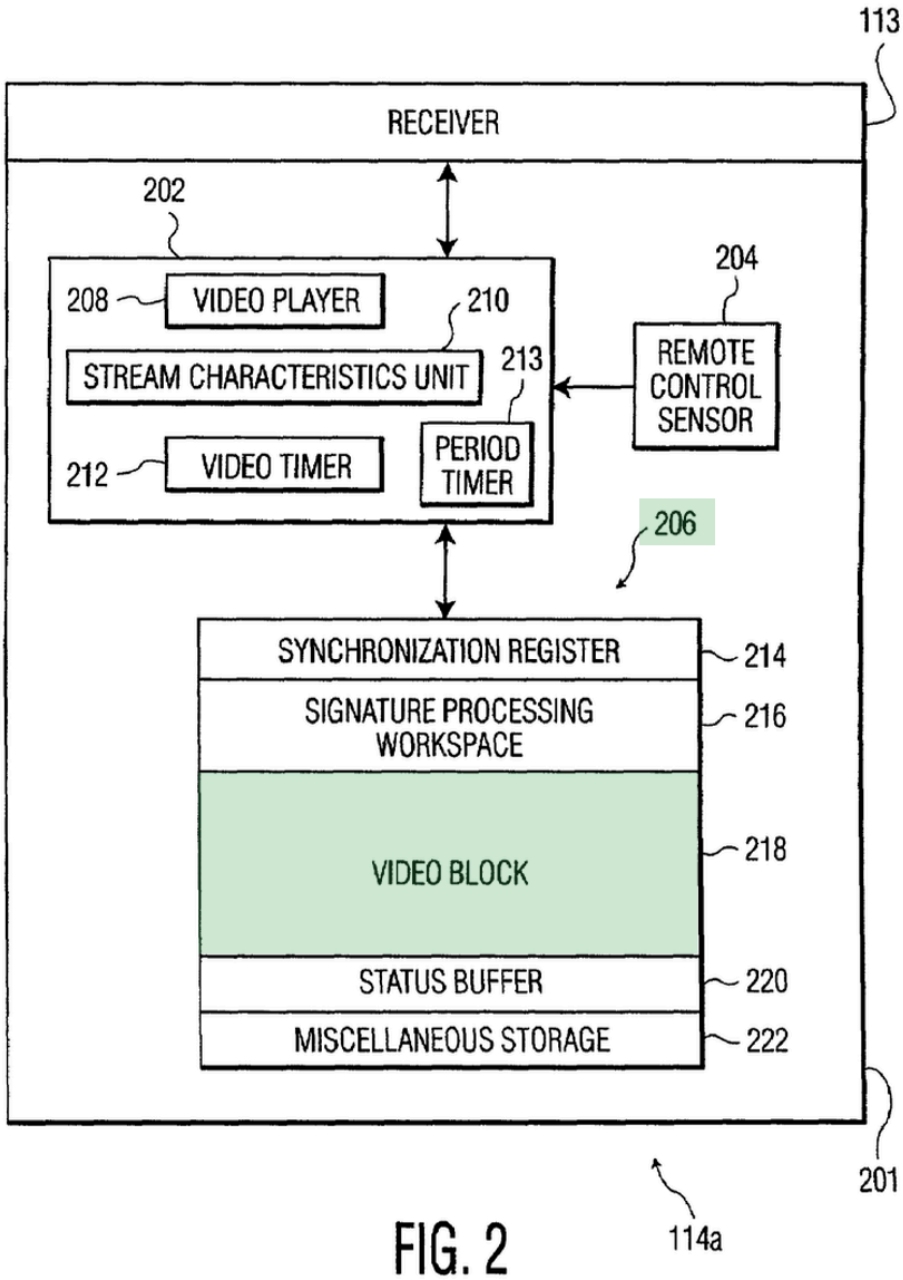

FIG. 2

Id., FIG. 2 (annotated). A PVR includes "digital memory 206" comprising, *inter alia*, "video block 218 [that] contains a program or video 308" (illustrated in FIG. 3) that was recorded by the PVR. *Id.*, 7:62-65, 8:4-10; *see also, e.g.*, *id.*, 2:11-15, 5:7-10, 15:17-18. Janevski explains that a PVR can locally store "more than 30 hours of [recorded] programming." *Id.*, 1:20-24.

Janevski further discloses that multiple PVRs can enter a "synchronized viewing session" to enable two users to watch recorded video content together. *Id.*, 6:4-31, 6:59-63. Janevski's "synchronized PVR viewing system" is illustrated in FIG. 1, which is reproduced below:

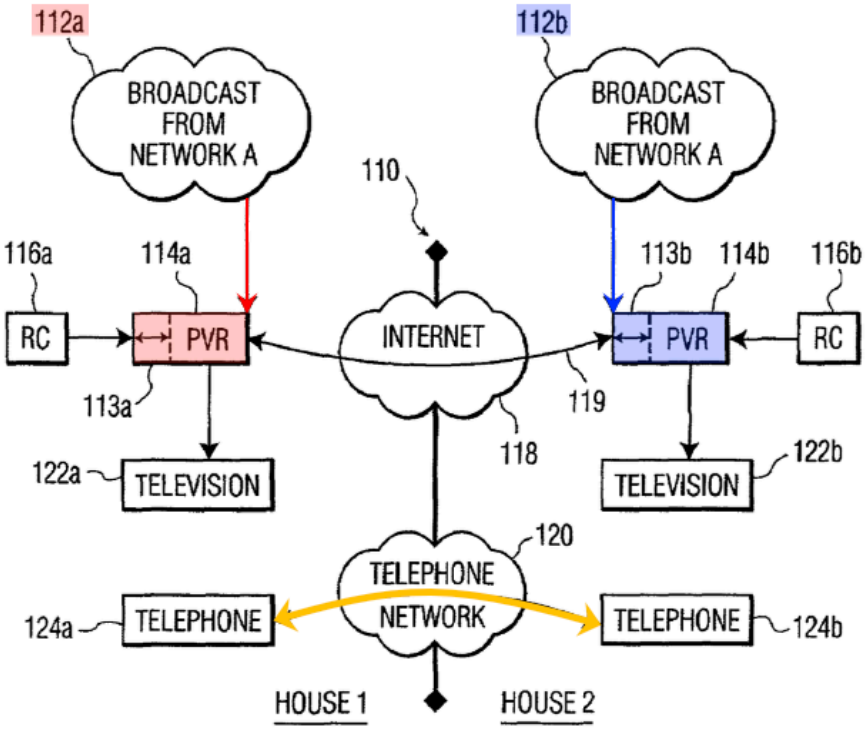

FIG. 1

Id., FIG. 1 (annotated). As shown in FIG. 1, a first broadcast 112a of video content is provided to a first PVR 114a (in red, above) and a second broadcast 112b of video content is provided to a second PVR 114b (in blue, above). *Id.*, FIG. 1, 6:5-39. According to Janevski, these broadcasts can come from different service providers

(e.g., RCN, Time Warner, etc.), each with its own respective commercials and/or broadcasting format. *Id*., 3:10-15, 3:27-39.

Janevski's synchronization techniques purport to allow users "physically located in different locations" (e.g., "House 1" and "House 2" in FIG. 1) to watch a given recorded video program "together," enabling them to communicate (e.g., via telephone; in orange, above) "to discuss the program as the events materialize" without one user "know[ing] the results of a dramatic scene or sporting event, for example, prior to the other user." *Id.*, 1:39-52, 6:50-56.

When a "synchronized viewing session" is initiated, the PVR that started the "synchronized viewing session" is designated the "initiator" and any other PVR participating in the "synchronized viewing session" is designated a "participant." *Id*., Abstract, 6:16-22. For example, in FIG. 1, PVR 114a is the "initiator" and PVR 114b is a "participant." *Id*.

After the "synchronized viewing session" is initiated, each "participant" PVR periodically determines whether there is any misalignment between the "initiator" PVR's rendering of video content from its respective local copy of the video and the "participant" PVR's rendering of video content from its respective local copy of the video. *Id*., Abstract, 7:36-50, 10:36-60, 12:59-13:29, 15:32-33.

To facilitate this, the "initiator" PVR periodically sends each "participant" PVR a "status message" illustrated in FIG. 5, which is reproduced below:

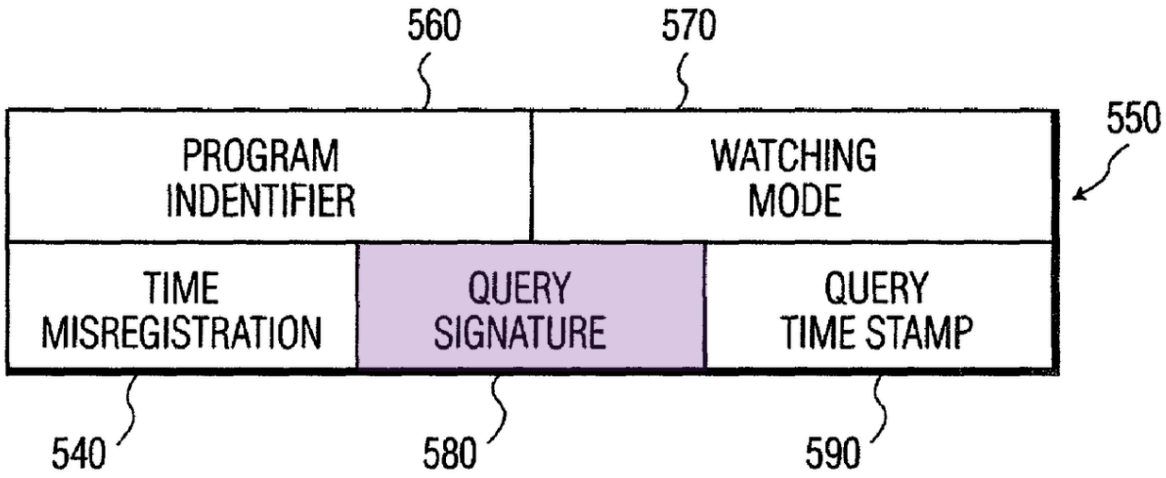

FIG. 5

Id., FIG. 5 (annotated). As shown, the "status message" includes, *inter alia*, a "query signature" for a "query frame," which is "a frame that the initiator has just played or has recently played…." *Id.*, Abstract, 7:36-50, 10:20-35, 12:5-36. Janevski explains that "[t]he query signature 580 is information characteristic of content of the digital bit stream from which the initiator plays back its own copy of the video 308." *Id.*, 10:28-30; *see also, e.g.*, *id.*, Abstract, 3:52-54, 4:11-12, 5:11-29, 7:41-50. For processing efficiency, Janevski prefers that a "query signature" represent a single video frame of content that was played by the initiator PVR. *Id.*, 4:58-61.

Janevski explains that the purpose of "information characteristic of content of [a] digital bit stream" (i.e., a "query signature") within a "status message" is for the recipient "participant" PVR to use the "query signature" to find similar content in its own local copy of the video 308. *Id.*, 7:47-50 ("The characteristic information is

used to 'fine tune' the synchronization by zeroing in on similar content being viewed on the message recipients' PVR 114b."), 10:30-35 ("That information is to be compared to signatures derived based on the participant's copy of the video 308, in order to fine tune the synchronization of the participant's playback of its copy of the video 308 with playback of the initiator's copy of the video 308."); *see also, e.g.*, *id.*, 3:52-57, 5:12-19.

After receiving a "status message" from the "initiator" PVR, each "participant" PVR may then use, *inter alia*, the "query signature" for the "initiator" PVR's "query frame" to determine whether there is any misalignment in the rendering between the "initiator" and "participant" PVRs (Janevski refers to this as "frame misregistration"). *Id*., 3:52-57, 5:12-19, 10:30-60, 12:59-14:63. In particular, the "participant" PVR may, *inter alia*, compare the "query signature" for the "initiator" PVR's "query frame" to information about video frames that have previously been played back by the "participant" PVR. *Id*., 3:52-57, 5:12-19, 10:30-60, 13:24-14:63.

The "participant" PVR uses this comparison as a basis for determining "frame misregistration" between the "initiator" PVR and "participant" PVR, which is a measure of the misalignment in the "PVRs'" prior playback, and then retroactively compensates for this prior misalignment by slowing down, speeding up, rewinding, fast-forwarding, and/or halting its rendering of video content. *Id*., Abstract, 3:52-57, 5:12-19, 10:60-62, 13:24-30, 14:35-63.

B. Google Fails to Demonstrate a Reasonable Likelihood of Prevailing on Limitations [1l] & [1m]

As explained above, limitations [1l] and [1m] together require the "*first zone player*" in "*the audio-slave mode*" to be configured to "*engage in synchronous playback*" of "*the audio information*" that the "*first zone player*" receives "*from another zone player*." *Supra* §III.

As also explained above, the Petition sets forth a single ground against the independent claims, and that single ground is premised on Janevski alone supplying these requirements of limitations [1l] and [1m]. *Supra* §III. In particular, the Petition contends that "information characteristic of content of a digital bit stream" (i.e., a "query signature") that the "initiator" PVR sends in a "status message" to a "participant" PVR amounts to the claimed "*audio information*" of limitations [1l] and [1m]. *Supra* §III; Pet. 46-47 ("The initiator transmits a **status message** to each participant to maintain synchronization…. Janevski discloses that its status message contains 'the current mode of watching…, an indication of the time into the program, and information characteristic of content of a digital bit stream" and discloses that the content 'may be aural' (audio information).") (emphasis Google's).

The fatal problem for Google's Petition is that ***no*** PVR (purported "*first zone player*") in Janevski ***ever*** engages in playback, much less synchronous playback with another PVR, of "information characteristic of content of a digital bit stream" (i.e., a "query signature") within a received "status message."

To the contrary, in Janevski, each PVR receives a respective video broadcast from a service provider like RCN, Time Warner, etc., and records its own, local copy of the broadcast. *See, e.g.*, §IV.A.; Janevski:

- 3:13-16 ("Both viewers, for instance, may be watching the same network, e.g., National Broadcasting Company (NBC), but through ***different*** cable or satellite ***providers***, e.g., RCN or Time Warner.");[5]
- 6:11-16 ("The same network production, e.g., specific baseball game, is transmitted to each of House 1 and House 2. As the broadcast***s*** 112 a, b enter House 1 and House 2, ***respectively***, they are received by receivers 113 a, b housed within each of the respective PVRs 114 a, b.");
- 6:31-36 ("The user has the ability to record a variety of different programs in the PVR 114 a, b along the bandwidth of the incoming broadcast signal. Additionally, since the ***broadcast*** signal is ***routed to each house separately***, each house has the ability to separately turn the broadcast signal on or off.").

Then, in Janevski's "synchronized viewing session," each PVR plays back video information from its ***own, local copy*** of a given broadcast that the PVR previously recorded. *See, e.g.*, §IV.A.; Janevski:

- 2:11-15 ("[I]t will be initially assumed, for purposes of illustrating the present invention, that both PVRs are playing back ***respective***, identical ***copies*** of a video. The frame of the sending PVR is part of the ***sender's copy*** of the video, which resides in a bit stream that is ***stored in a storage***

[5] Bolded emphasis has been added herein unless noted otherwise.

medium. Similarly, frames of ***recipient PVR's copy*** of the video reside in a bit stream that is ***stored in the recipient's storage medium***.");

- 3:3-5 ("[T]he speed at which the respective PVRs play back their ***respective copies of the video*** may differ.");
- 5:7-10 ("[T]he present invention is directed to an apparatus for synchronizing presentation of renderable content of two digital bit streams that reside in ***respective*** storage media.");
- 15:17-18 ("***Each local copy*** of the video 308 is essentially the same; although, they may differ[.]");
- Abstract ("Content of multiple digital bit streams with essentially the same renderable content… are played back in unison…. [T]he processors [] participate in a synchronized viewing session by playing back ***respective*** streams.");
- FIG. 2 (video block 218).

Thus, no "participant" PVR (purported "*first zone player*" in "*the audio-slave mode*") plays back any media information that it receives from ***another*** PVR, much less specifically plays back "information characteristic of content of a digital bit stream" (i.e., "query signature") that it receives from another PVR, as Google's theory demands.

In fact, "information characteristic of content of a digital bit stream" (i.e., a "query signature") that an "initiator" PVR includes in a "status message" that it ultimately sends to a "participant" PVR is not even information that the "initiator" PVR itself plays back. Rather, Janevski explains that the "initiator" PVR generates

a "query signature" ***from*** "a frame that the initiator ***has just played*** or ***has recently played***…." Janevski, 12:5-17.

Lastly, Janevski never even suggests that a PVR plays back "information characteristic of content of a digital bit stream" (i.e., a "query signature") included in a "status message." Instead, Janevski clearly explains that the purpose of "information characteristic of content of a digital bit stream" (i.e., a "query signature") included in a "status message" is for the recipient, participant PVR to use the received "query signature" to search within its ***own, local copy*** of the video program to find matching or similar content. This enables the participant PVR to retroactively adjust its playback of its ***own, local copy*** of the video program if there is "frame misregistration" between the initiator's playback and the participant's playback. *See, e.g.*, Janevski, 10:47-60; *supra* §IV.A.

For at least these reasons, Janevski's "information characteristic of content of a digital bit stream" (i.e., a "query signature") does not amount to the claimed "*audio information*" of limitations [1l] and [1m].

Google's Petition cites to nothing from Janevski suggesting otherwise. *See Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) ("In an IPR, the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable."). In this respect, the Petition cites to four passages from Janevski as allegedly disclosing the claimed "*audio information*" of limitations

[1l] and [1m]: 5:10-12, 6:44-51, 7:39-50, and 16:36-37. Pet., 46-47, 48-49. The text of these passages is reproduced below in full:

- Janevski, 5:10-12: "Renderable content, as used herein, refers to content that is presentable in a form that a user can sense, e.g. visually or aurally."
- Janevski, 6:44-51: "The system 110 preferably has two communication networks associated therewith. The first is an Internet network 118 that interconnects the PVRs 114 a, b located at the two different locations (e.g. House 1 and House 2). The Internet network 118 supplies the means 119 for communicating information between the PVRs 114 a, b such that synchronization may be achieved."
- Janevski, 7:39-50: "The status message is also transmitted with each command that is broadcasted in response to a participant performing a control function. The status message includes an indication of the program being watched, the current mode of watching (e.g., normal play, fast forward, pause), an indication of the time into the program, and information characteristic of content of a digital bit stream from which playback to the message sender is being generated. The characteristic information is used to 'fine tune' the synchronization by zeroing in on similar content being viewed on the message recipients' PVR 114 b."
- Janevski, 16:36-37: "The presentation may be merely visual or merely aural or both visual and aural."

Of these passages, only 7:39-50 refers to a "query signature" or "information characteristic of content of a digital bit stream." But, as explained before, this

passage plainly explains that "information characteristic of content of a digital bit stream" is merely used by the recipient PVR to find "similar content" within its local copy of the video program, which is what the recipient PVR actually plays back. *Supra* §IV.A.

Accordingly, the Petition fails to demonstrate a reasonable likelihood of prevailing on limitations [1l] or [1m] and thus, fails to demonstrate a reasonable likelihood of prevailing on any of the independent claims of the '001 Patent.

V. CONCLUSION

Google's invalidity theory for all the independent claims is fatally flawed, which in turn infects each other challenged dependent claim. Accordingly, the Petition fails to demonstrate a reasonable likelihood that Google would prevail with respect to any of the challenged claims of the '001 Patent and should therefore be denied.

Respectfully submitted,

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Dated: January 21, 2026

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CERTIFICATE OF WORD COUNT

The undersigned certifies that the foregoing PATENT OWNER'S PRELIMINARY RESPONSE complies with the type-volume limits in 37 C.F.R. § 42.24(b)(1). According to the utilized word-processing system's word count, this paper—excluding the caption, table of contents, table of authorities, table of exhibits, certificate of word count, and certificate of service—contains 4,887 words.

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