IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

IMPLICIT, LLC, Plaintiff, v. SONOS, INC., Defendant.	Civil Action No. _____ **JURY TRIAL DEMANDED**

ORIGINAL COMPLAINT

Plaintiff Implicit, LLC ("Plaintiff" or "Implicit") files this Complaint against Sonos, Inc. ("Defendant" or "Sonos") for infringement of U.S. Patent Nos. 7,391,791 (the "'791 patent) and 8,942,252 (the "'252 patent) (collectively, the Patents-in-Suit):

I. THE PARTIES

1. Implicit is a limited liability corporation organized and existing under the laws of the state of Texas, with its principal place of business at 600 Congress Avenue, 14th Floor, STE 14149, Austin, Texas 78701.

2. On information and belief, Defendant Sonos, Inc. is a corporation organized under the laws of Delaware with its principal place of business at 419 State St, Santa Barbara, California 93101. Defendant can be served with process by serving their registered agent for service of process in the State of Delaware, The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801.

II. NATURE OF THE ACTION

3. This is a patent infringement action to end Sonos's unauthorized and infringing manufacture, distribution, use, sale, and/or offer to sell in the United States of products, methods, processes, services, and/or systems that infringe Implicit's patented inventions.

4. The '791 patent (attached hereto as Exhibit A), titled "Method and System for Synchronization of Content Rendering," was filed on December 17, 2002 and issued on June 24, 2008. Implicit is the assignee of all rights, title, and interest in the '791 patent, and it possesses all rights to sue and recover for any current or past infringement of the '791 patent.

5. The '252 patent (Attached hereto as Exhibit B), titled "Method and System Synchronization of Content Rendering," was filed on March 25, 2013 and issued on January 27, 2015. Implicit is the assignee of all rights, title, and interest in the '252 patent, and it possesses all rights to sue and recover for any current or past infringement of the '252 patent.

6. Sonos manufactures, provides, uses, sells, offers for sale, and/or distributes infringing products and services and encourage others to use their products and services in an infringing manner, including their customers. Implicit seeks past and future damages and prejudgment and post-judgment interest for Sonos' past infringement of the Patents-in-Suit.

III. JURISDICTION AND VENUE

7. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the patents laws of the United States, including 35 U.S.C. §§ 271, 281, 283, 284 and 285.

8. This Court has general personal jurisdiction over Sonos because, upon information and belief, Sonos is incorporated in Delaware and regularly conducts business within the State of Delaware.

9. Personal jurisdiction over Sonos is also proper because, among other things, Sonos has established minimum contacts within the forum such that the exercise of jurisdiction over Sonos will not offend traditional notions of fair play and substantial justice. For example, Sonos has committed, aided, abetted, induced, contributed to, and/or participated in the commission of patent infringement in violation of 35 U.S.C. § 271 in this judicial district and elsewhere that led to foreseeable harm and injury to Implicit. Sonos has placed products that practice and/or embody the claimed inventions of the Patents-in-Suit into the stream of commerce with the reasonable expectation and/or knowledge that purchasers and users of such products were located within this district. In addition, Sonos has sold, advertised, marketed, and distributed products in this district that practice the claimed inventions of the Patents-in-Suit. Sonos derives substantial revenue from the sale of infringing products distributed within the district, and/or expect or should reasonably expect their actions to have consequences within the district, and derive substantial revenue from interstate and international commerce.

10. Venue is proper in this District pursuant to 28 U.S.C. §§ 1391(b), 1391(c), and 1400(b), because Sonos is incorporated in Delaware, subject to personal jurisdiction in this District, and has committed acts of infringement in this District.

IV. FACTUAL ALLEGATIONS

11. While the precise limitations of the claimed inventions are set forth in the claims themselves, the Patents-in-Suit generally disclose a particular method for ensuring the playback of various types of media occurs synchronously across different rendering devices. The claimed methods provide the means to achieve consistent and accurate synchronization in situations where synchronization was traditionally difficult, *e.g.* when the various rendering devices have different or multiple time domains, which can cause the rendering devices to "drift" out of sync. The claimed methods can be used to achieve synchronicity between a television and home

theater speakers so that the audio output by the speakers is in sync with the video displayed on the television, *e.g.* ensuring there are no lip-sync issues with the dialog on screen. Additionally, the claimed methods can be used to ensure that when multiple speakers are playing the same audio source, the speakers are playing the audio back in sync with the others so the listener does not hear any "echo" or "lag" between the rendering of the audio signal at the synchronized speakers. The Patents-in-Suit achieve this improved result by designating one of the rendering devices (*e.g.* a speaker) as a master device that will share rendering information (*e.g.* rendering time at the master device) with one or more slave devices (*e.g.* another speaker paired with the master). Based on this information from the master, the rendering at the slave device is adjusted such that it remains in sync with the rendering at the master device.

12. By way of example, claim 1 of the '791 patent reads as follows:

> 1. A method for synchronizing a rendering of a content provided by a source at one or more devices which are nodes of a network, the content having a rendering time, the method comprising:
>
> designating one of the one or more devices a master device, the master device having a master device time and a master rendering time;
>
> designating remaining devices among one of the one or more devices as at least one slave device, the at least one slave device having a slave device time and a slave rendering time;
>
> receiving the content for rendering by the master and at least one slave device;
>
> sending from the master device to the at least one slave device an indication of when the master device renders content corresponding to the master rendering time;
>
> determining a master device time domain, a slave device time domain, and a source time domain;
>
> determining whether a time domain differential exists between the master rendering time, the slave rendering time; and
>
> adjusting, based on the received indication, the rendering of the content at the at least one slave device within the slave device time domain and in proportion to the time domain differential when present to account for variation between when the

master device and the at least one slave device to render content that should be rendered at the same time.

13. By way of further example, claim 1 of the ’252 patent reads as follows:

1. A method, comprising:

a master rendering device rendering a first content stream; and

sending, from the master rendering device to a first one of a plurality of slave devices, a plurality of master rendering times indicative of statuses of the rendering the first content stream at the master rendering device at different times;

wherein the first slave device is configured to smooth a rendering time differential that exists between the master rendering device and the first slave device in order to render a second content stream at the first slave device synchronously with the rendering of the first content stream at the master rendering device, wherein smoothing the rendering time differential includes calculations using the plurality of master rendering times.

14. The original assignee of the Patents-in-Suit, Implicit Networks, Inc., was founded in 1996 in Bellevue, Washington by one of the co-inventors of the Patents-in-Suit—Mr. Edward Balassanian. Mr. Balassanian currently serves as the Manager of Implicit. Implicit provides software platforms and products that enable original equipment manufacturers (“OEMs”) and independent software vendors (“ISVs”) to build applications for networks. Its products include Strings OS, which enables OEMs and ISVs to build, deploy, and manage applications in the network and on the devices that access the network; and RADkit, a toolkit designed specifically to build applications for network infrastructure and for devices that access the network.

15. Implicit developed and included synchronization technology in its Strings OS product to playback audio and video at IP-based speakers and displays such that the audio and video information sent to the IP devices would be rendered in sync with the other devices. Implicit’s synchronization technology was used by Intel Corporation in its pioneering Intel Web Tablet and Intel Audio Port (a device which allowed an analog speaker to be used as an IP-based speaker). Motorola similarly deployed Implicit’s synchronization technology as part of its Stereo

Relay product. Additionally, Implicit's synchronization technology was used in Thomson's Set-top Box, leading to a best-in-show award at the Consumer Electronics Show.

16. Sonos provides software, hardware, and services directed to synchronizing the rendering of content at various rendering devices on a network. For example, as described on Sonos's website, Sonos makes, uses, sells, and deploys a wireless home sound system that allows the grouping of speakers so the speakers will "continue to play in sync with each other until you ungroup the speakers using the Sonos app."[1] On information and belief, Sonos's speakers and rendering devices utilize a master device with slave devices and various device times and rendering times to render content at the master devices and slave devices synchronously. For example, on information and belief, when a user of the Sonos systems "groups" multiple speakers together, one of the speakers will act as the coordinator or master for the group and is responsible for sending the content for rendering, *e.g.* music, and timing information to the other speakers in the group. The general functionality of Sonos's proprietary dedicated wireless mesh network, SonosNet, and the standard Wi-Fi setup are illustrated and described below.

[1] *See* https://sonos.custhelp.com/app/answers/detail/a_id/4002/kw/sync/session/L3RpbWUvMTQ4MTMwMzk1OS9zaWQvZlVzam5hWk1POGQlN0U5N056N1p4bWVqVTJwWk43QWx3VTlrNkxzUmRMWndLZHQ4WUdkWHpDdkRfS2QzOWtpNGxONjNNR3V4ZG40UFFSQzV2UmZvUzVmTVhkUkFyREh1c3dnZDhxb2JYJTdFdXZGYnM1bzRHY3JtdEFfQSUyMSUyMQ%3D%3D#tips

3 Wireless Mesh Network

Each Sonos product is network-enabled with Ethernet, wireless interfaces, or both and uses TCP/IP to communicate. You can set up the Sonos Wireless HiFi System wirelessly (standard setup), or by connecting a Sonos product to your router with an Ethernet cable (BRIDGE setup). If you connect a Sonos component to your router, the Sonos system establishes and uses SonosNet, a secure wireless mesh network to communicate and stream music throughout the household. (Connect a BRIDGE to your router if you won't listen to music in this location, or connect a player to have audio available.) If you set up Sonos wirelessly, Sonos components communicate using over the home's wireless network.

SonosNet is a secure, AES-encrypted, peer-to-peer wireless mesh network that provides stable, reliable audio playback.

Sonos components communicate directly with each other, so each component expands the network. Each Sonos product is network enabled with an Ethernet interface, a wireless interface, or both so you can choose to set up the Sonos system to use either SonosNet (by connecting one Sonos product to your router) or your wireless network. If you plug a Sonos product into your router, all of your Sonos components will use SonosNet to communicate with each other.

When the Sonos Wireless HiFi System is set up, a ***household*** is created. A household is limited to thirty-two components each of which must be on the same IP subnet.

http://musicpartners.sonos.com/sites/default/files/Sonos%20System%20Overview.pdf

This requires that each Sonos component have access to the audio data. In the Sonos architecture, this is achieved by requiring that all Sonos components be members of a player group in order to play audio, and selecting a lead player, called the ***group coordinator***, to distribute the audio data to the other group members. Group membership can be changed "on the fly" by linking and unlinking rooms without restriction. This flexibility is achieved by a dynamic handoff of the lead Sonos component role. To ensure the handoff is free from audio interruptions, both existing and new lead components access the same content simultaneously for a limited period of time.

http://musicpartners.sonos.com/sites/default/files/Sonos%20System%20Overview.pdf

Figure 1 shows the various components of the Sonos Wireless HiFi System.

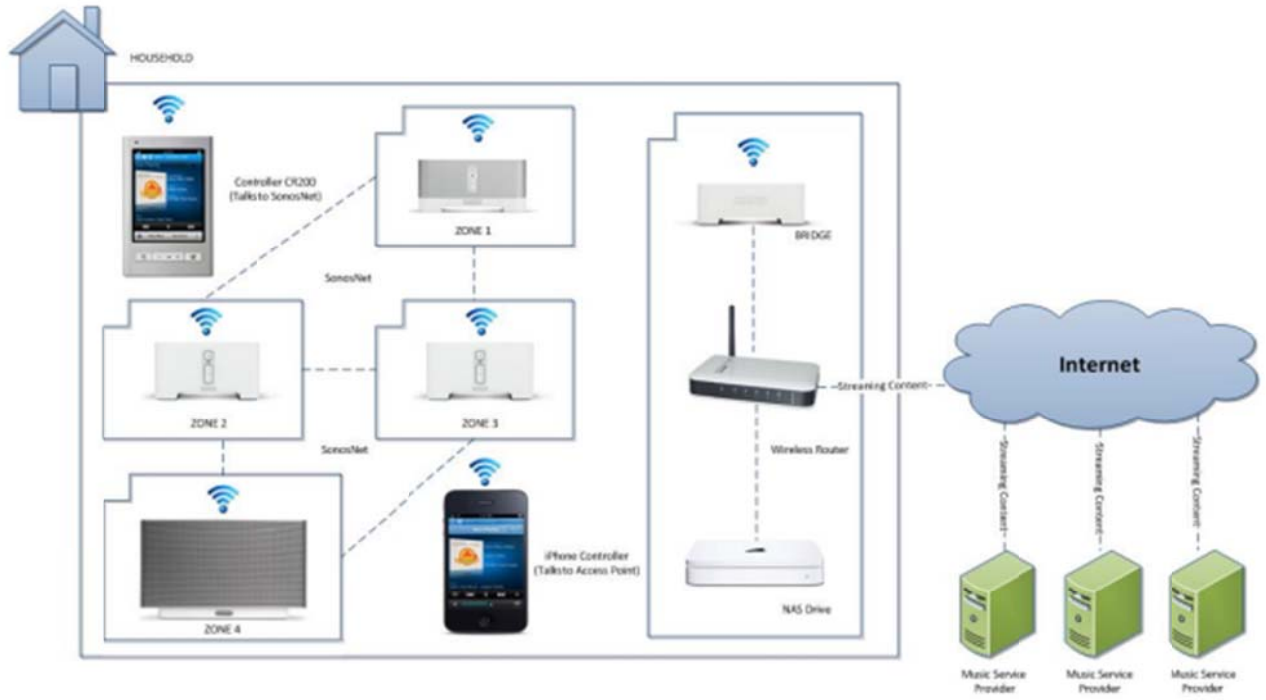


Figure 1: Components of the Sonos Wireless HiFi System

http://musicpartners.sonos.com/sites/default/files/Sonos%20System%20Overview.pdf

17. On information and belief, Sonos also implements contractual protections in the form of license agreements with its customers to preclude the unauthorized reproduction, distribution, and modification of its software. Moreover, on information and belief, Sonos implements technical precautions to attempt to thwart customers who would circumvent the intended operation of Sonos's products.

V. PATENT INFRINGEMENT

COUNT I—INFRINGEMENT OF U.S. PATENT NO. 7,391,791

18. Paragraphs 1 through 17 are incorporated by reference as if fully stated herein.

19. The '791 patent is valid and enforceable.

DIRECT INFRINGEMENT (35 U.S.C. § 271(a))

20. Sonos has directly infringed, and continues to directly infringe, one or more claims of the ’791 patent in this judicial district and elsewhere in Delaware and the United States.

21. Based on the information presently available to Implicit, Sonos has directly infringed, and continues to directly infringe one or more claims of the ’791 patent, by, among other things, making, providing, using, offering for sale, selling, and/or distributing its wireless audio and video products in an infringing manner. Such devices include, but are not limited to, SonosNet, PLAY:1 speakers, PLAY:3 speakers, PLAY:5 speakers, CONNECT preamplifier, associated software and applications, and all reasonably similar products of Sonos (the “’791 Accused Products”). These devices utilize a master device with slave devices and various device times and rendering times to render content at the master devices and slave devices synchronously.

INDIRECT INFRINGEMENT (INDUCEMENT - 35 U.S.C. § 271(b))

22. Based on the information presently available to Implicit, Implicit contends that Sonos has indirectly infringed, and continues to indirectly infringe, one or more claims of the ’791 patent by inducing direct infringement by third parties, including without limitation manufacturers, resellers, and/or end users of the ’791 Accused Products, of infringing the ’791 Patent in this District and elsewhere in the United States.

23. Sonos has had knowledge of the ’791 patent and the infringing nature of their activities at least as early as the date when Implicit effected service of this Complaint.

24. On information and belief, despite having knowledge of the ’791 patent, Sonos has specifically intended for persons who acquire and use the ’791 Accused Products, including

without limitation end-users of the ’791 Accused Products, to acquire and use such devices in such a way that infringes at least one or more claims of the ’791 patent, and Sonos knew or should have known that its actions were inducing infringement.

25. Direct infringement is the result of activities performed by third parties in relation to the ’791 Accused Products, including without limitation by end users enabled and encouraged by Sonos to use the ’791 Accused Products in their normal, customary way to infringe the ’791 patent.

26. With knowledge of the ’791 patent, Sonos directs and aids third parties, including without limitation end-users of the ’791 Accused Products, to infringe the ’791 patent by, among other things, (i) enabling a user of the ’791 Accused Products to use the products to support utilizing a master device with slave devices and various device times and rendering times to render content at the master devices and slave devices synchronously as claimed in the ’791 patent; (ii) providing instructions (including, by way of example, tutorials, user guides, product guides, a help library, and other documentation available at www.sonos.com and http://musicpartners.sonos.com/. For instance, a “Product Guide” on “System Setup” is available at http://www.sonos.com/documents/productguides/en/SetupGuide_EN.pdf and “API Documents & Tools” are available at http://musicpartners.sonos.com/?q=docs) to end-users of the ’791 Accused Products for using the products in their customary way; (iii) advertising the ’791 Accused Products’ support of utilizing a master device with slave devices and various device times and rendering times to render content at the master devices and slave devices synchronously; and (iv) providing to third parties the products and software and related equipment that may be required for or associated with infringement of the ’791 patent, all with knowledge that the induced acts constitute patent infringement. Sonos possesses specific intent

to encourage infringement by third parties, including without limitation end-users of the ’791 Accused Products.

INDIRECT INFRINGEMENT (CONTRIBUTION - 35 U.S.C. §§ 271(c) and/or (f))

27. Based on the information presently available to Implicit, Implicit contends that Sonos has indirectly infringed, and continues to indirectly infringe one or more claims of the ’791 patent by contributing to the infringement of the ‘791 patent under 35 U.S.C. §§ 271(c) and/or 271(f), either literally and/or under the doctrine of equivalents, by making, providing, selling, offering for sale, and/or distributing in the United States the ’791 Accused Products.

28. Sonos has had knowledge of the ’791 patent and the infringing nature of its activities at least as early as the date when Implicit effected service of the Original Complaint.

29. The ’791 Accused Products are capable of utilizing a master device with slave devices and various device times and rendering times to render content at the master devices and slave devices synchronously. Sonos knows that the ’791 Accused Products (i) constitute a material part of the inventions claimed in the ’791 patent; (ii) are especially made or adapted to infringe the ’791 patent; (iii) are not staple articles or commodities of commerce suitable for non-infringing use; and (iv) are components used for or in systems that are capable of utilizing a master device with slave devices and various device times and rendering times to render content at the master devices and slave devices synchronously as claimed in the ’791 patent.

30. Implicit is informed and believes that Sonos intends to and will continue to directly and indirectly infringe the ’791 patent. Implicit has been damaged as a result of Sonos’s infringing conduct described in this Count. Thus Sonos is liable to Implicit in an amount that adequately compensates Implicit for Sonos’ infringement, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT II—INFRINGEMENT OF U.S. PATENT NO. 8,942,252

31. Paragraphs 1 through 30 are incorporated by reference as if fully stated herein.

32. The ’252 patent is valid and enforceable.

DIRECT INFRINGEMENT (35 U.S.C. § 271(a))

33. Sonos has directly infringed, and continues to directly infringe, one or more claims of the ’252 patent in this judicial district and elsewhere in Delaware and the United States.

34. Sonos has directly infringed, and continues to directly infringe one or more claims of the ’252 patent, by, among other things, making, using, providing, offering for sale, selling, and/or distributing its wireless audio and video products that utilize a master device with slave devices and various device times and rendering times to render content at the master devices and slave devices synchronously. Such devices include, but are not limited to, SonosNet, PLAY:1 speakers, PLAY:3 speakers, PLAY:5 speakers, CONNECT preamplifier, associated software and applications, and all reasonably similar products of Sonos (the “’252 Accused Products”).

INDIRECT INFRINGEMENT (INDUCEMENT - 35 U.S.C. § 271(b))

35. Based on the information presently available to Implicit, Implicit contends that Sonos has indirectly infringed, and continues to indirectly infringe, one or more claims of the ’252 patent by inducing direct infringement by third parties, including without limitation manufacturers, resellers, and/or end users of the ’252 Accused Products, of infringing the ’252 Patent in this District and elsewhere in the United States.

36. Sonos has had knowledge of the ’252 patent and the infringing nature of its activities at least as early as the date when Implicit effected service of this Complaint.

37. On information and belief, despite having knowledge of the ’252 patent, Sonos has specifically intended for persons who acquire and use the ’252 Accused Products, including without limitation end-users of the ’252 Accused Products, to acquire and use such devices in such a way that infringes at least one or more claims of the ’252 patent, and Sonos knew or should have known that its actions were inducing infringement.

38. Direct infringement is the result of activities performed by third parties in relation to the ’252 Accused Products, including without limitation by end users enabled and encouraged by Sonos to use the ’252 Accused Products in their normal, customary way to infringe the ’252 patent.

39. With knowledge of the ’252 patent, Sonos directs and aids third parties, including without limitation end-users of the ’252 Accused Products, to infringe the ’252 patent by, among other things, (i) enabling a user of the ’252 Accused Products to use the products to support utilizing a master device with slave devices and various device times and rendering times to render content at the master devices and slave devices synchronously as claimed in the ’252 patent; (ii) providing instructions (including, by way of example, tutorials, user guides, product guides, a help library, and other documentation available at www.sonos.com and http://musicpartners.sonos.com/. For instance, a “Product Guide” on “System Setup” is available at http://www.sonos.com/documents/productguides/en/SetupGuide_EN.pdf and “API Documents & Tools” are available at http://musicpartners.sonos.com/?q=docs) to end-users of the ’252 Accused Products for using the products in their customary way; (iii) advertising the ’252 Accused Products’ support of utilizing a master device with slave devices and various device times and rendering times to render content at the master devices and slave devices synchronously; and (iv) providing to third parties the products and software and related

equipment that may be required for or associated with infringement of the ’252 patent, all with knowledge that the induced acts constitute patent infringement. Sonos possesses specific intent to encourage infringement by third parties, including without limitation end-users of the ’252 Accused Products.

INDIRECT INFRINGEMENT (CONTRIBUTION - 35 U.S.C. §§ 271(c) and/or (f))

40. Based on the information presently available to Implicit, Implicit contends that Sonos has indirectly infringed, and continues to indirectly infringe one or more claims of the ’252 patent by contributing to the infringement of the ‘252 patent under 35 U.S.C. §§ 271(c) and/or 271(f), either literally and/or under the doctrine of equivalents, by making, providing, selling, offering for sale, and/or distributing in the United States the ’252 Accused Products.

41. Sonos has had knowledge of the ’252 patent and the infringing nature of its activities at least as early as the date when Implicit effected service of the Original Complaint.

42. The ’252 Accused Products are capable of utilizing a master device with slave devices and various device times and rendering times to render content at the master devices and slave devices synchronously. Sonos knows that the ’252 Accused Products (i) constitute a material part of the inventions claimed in the ’252 patent; (ii) are especially made or adapted to infringe the ’252 patent; (iii) are not staple articles or commodities of commerce suitable for non-infringing use; and (iv) are components used for or in systems that are capable of utilizing a master device with slave devices and various device times and rendering times to render content at the master devices and slave devices synchronously as claimed in the ’252 patent.

43. Implicit is informed and believes that Sonos intends to and will continue to directly and indirectly infringe the ’252 patent. Implicit has been damaged as a result of Sonos’s infringing conduct described in this Count. Thus Sonos is liable to Implicit in an amount that

adequately compensates Implicit for Sonos's infringement, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

VI. PRAYER FOR RELIEF

WHEREFORE, Implicit prays for judgment and seeks relief against Sonos as follows:

A. Judgment that one or more claims of U.S. Patent Nos. 7,391,791 and 8,942,252 have been infringed, literally and/or under the doctrine of equivalents, by Sonos;

B. That Implicit be awarded past and future damages together with prejudgment and post-judgment interest to compensate for Sonos' infringement of the Patents-in-Suit in accordance with 35 U.S.C. §284; and

C. That Implicit be awarded such other and further relief as this Court deems just and proper under the circumstances.

VII. DEMAND FOR JURY TRIAL

Implicit hereby demands a trial by jury on all issues so triable.

Dated: March 10, 2017

Respectfully submitted,

FARNAN LLP

/s/ Brian E. Farnan

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