

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

IMPLICIT, LLC,

Plaintiff,

v.

SONOS, INC.,

Defendant.

C.A. No. 17-cv-259-LPS-CJB

JURY TRIAL DEMANDED

**FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Implicit, LLC (“Implicit”), for its First Amended Complaint against Defendant Sonos, Inc. (“Sonos” or “Defendant”), upon information and belief, states and alleges as follows:

**NATURE OF THE ACTION**

1. This is a civil action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code.
2. As set forth in more detail below, Defendant has been infringing United States Patent Nos. 7,391,791 (the “791 Patent”) and 8,942,252 (the “252 Patent”) (collectively, the “Patents-in-Suit”), and continue to do so through the present date.

**THE PARTIES**

3. Implicit is a corporation organized and existing under the laws of the state of Texas with its principal place of business in Texas.
4. Upon information and belief, Sonos is a Delaware corporation with its principal place of business at 419 State St., Santa Barbara, California 93101; and can be served with process by serving its registered agent for service of process in the state of Delaware, The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801.
5. Unless specifically stated otherwise, the acts complained of herein were committed by, on behalf of, and/or for the benefit of Sonos.

**JURISDICTION AND VENUE**

6. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

7. This Court has personal jurisdiction over Sonos because (a) it has committed the acts of patent infringement complained of herein, including but not limited to offering for sale or selling infringing products embodying Implicit's patented invention, in this State and this District; (b) it has directed its acts of infringement and the other unlawful acts complained of herein at this State and this District; and (c) it is a Delaware corporation.

8. This Court has personal jurisdiction over Defendant for the additional reason that it has engaged in systematic and continuous contacts with this State and this District by, *inter alia*, regularly conducting and soliciting business in this State and this District, being incorporated in this State, and/or deriving substantial revenue from products and/or services provided to persons in this State and this District.

9. Venue is proper in this District under 28 U.S.C. § 1391(b) because a substantial part of the acts complained of herein occurred in this District, Defendant transacts business in this District, Defendant resides in this District by way of its incorporation in this District, and/or the property that is the subject of this action is situated in this District.

10. Venue is proper in this District under 28 U.S.C. §§ 1391(c)-(d) and 1400(b) because (i) Defendant resides in this District by way of its incorporation in this District; and/or (ii) Defendant has committed acts of infringement and has a regular and established place of business in this District.

**FACTUAL ALLEGATIONS**

11. While the precise limitations of the claimed inventions of the Patents-in-Suit are set forth in the claims thereof 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 for example be used to achieve synchronization 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, *i.e.* ensuring there are no lip-sync issues with the dialog on screen. As another example, the claimed methods can be used to ensure that when multiple speakers are playing the same audio source, the speakers play back the audio in sync with one another so that the listener does not hear any “echo” or “lag” between the rendering of the audio signal at one speaker or speakers as compared to the other(s). The Patents-in-Suit achieve this improved result by designating one of the rendering devices as a master device that will share rendering information with one or more slave devices. 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.

12. 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 Plaintiff 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 Strongs OS, which enables OEMs and ISVs to build, deploy, and manage applications in the network and on devices that access the networks; and RADkit, a toolkit designed specifically to build applications for network infrastructure and for devices that access the network.

13. 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 that 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. As one additional example, Implicit's synchronization technology was used in Thomson's Set-top Box, leading to a best-in-show award at the Consumer Electronics Show.

14. Sonos provides software, hardware, and services directed to synchronizing the rendering of content at various rendering devices on a network.

15. For example, as described on Sonos's website, Sonos makes, uses, sells, and deploys a wireless home sound system that allow the grouping of speaking so that the speakers will "play the same music in sync" "and continue to play in sync with each other until you ungroup the speakers using the Sonos app."<sup>1</sup> Sonos's products utilize a proprietary dedicated wireless mesh network called SonosNet to achieve this functionality, as illustrated and described below.

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<sup>1</sup> [https://sonos.custhelp.com/app/answers/detail/a\\_id/4002/kw/sync/session/L3RpbWUvMTQ4MTMwMzk1OS9zaWQvZlVzam5hWk1POGQIN0U5N056N1p4bWVqVTJwWk43QWx3VTlrNkxzUmRMWndLZHQ4WUdkWHpDdkRfS2QzOWtpNGxONjNNR3V4ZG40UFFSQzV2UmZvUzVmTVhkUkFyREh1c3dnZDhxb2JYJTdFdXZGYnM1bzRHY3JtdEFfQSUyMSUyMQ%3D%3D](https://sonos.custhelp.com/app/answers/detail/a_id/4002/kw/sync/session/L3RpbWUvMTQ4MTMwMzk1OS9zaWQvZlVzam5hWk1POGQIN0U5N056N1p4bWVqVTJwWk43QWx3VTlrNkxzUmRMWndLZHQ4WUdkWHpDdkRfS2QzOWtpNGxONjNNR3V4ZG40UFFSQzV2UmZvUzVmTVhkUkFyREh1c3dnZDhxb2JYJTdFdXZGYnM1bzRHY3JtdEFfQSUyMSUyMQ%3D%3D) (last visited October 3, 2017).

### 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\\_System\\_Overview.pdf](http://musicpartners.sonos.com/sites/default/files/Sonos_System_Overview.pdf) at 7 (last accessed October 3, 2017).

16. When multiple Sonos devices are thus “grouped” together, one such device acts as the master or coordinator device and other device(s) act as slave device(s). In this configuration, the master device alone receives audio information from the audio source and is responsible for sending that audio information along to the slave device(s), as set forth below.

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.

*Id.* at 10.

17. Upon information and belief, when first plugged in and connected to a network, each Sonos device will perform an NTP sync with a remote server in order to synchronize the device's local date/time to the correct date/time.

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