

**IN THE UNITED STATES DISTRICT COURT  
THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

CALYPSO IP, LLC,

*Plaintiff,*

v.

LG ELECTRONICS INC., and  
LG ELECTRONICS U.S.A., INC.

*Defendant.*

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Case No. 2:24-cv-00839

Jury Trial Demanded

**PLAINTIFF’S ORIGINAL COMPLAINT**

Plaintiff Calypso IP, LLC files this suit against Defendants LG Electronics Inc. (“LGE”) and LG Electronics, U.S.A., Inc. (“LGEUS”) (collectively “LG” or “Defendants”) for infringement of United States Patent No. 6,680,923; and alleges, with personal knowledge as to its own actions and on information and belief as to the actions of others, as follows:

**THE PARTIES**

1. Plaintiff Calypso IP, LLC is a Texas limited liability company that holds all rights, titles, and interests in United States Patent No. 6,680,923 (the “’923 Patent” or “Asserted Patent”).

2. Defendant LGE is a Korean corporation with its principal place of business at LG Twin Towers 20 Yoido-dong, Youngdungpo-gu, Seoul, South Korea.

3. Defendant LGEUS is a Delaware corporation registered to do business in the state of Texas. LGEUS is a wholly owned subsidiary of LGE having regular and established places of business within this District at 2153-2155 Eagle Pkwy, Fort Worth, TX 76177 and 14901 Beach

St., Fort Worth, TX 76177. LGEUS may be served with process through its Texas registered agent United States Corporation Company, 211 E. 7th Street, Suite 620, Austin, Texas 78759.

#### **JURISDICTION & VENUE**

4. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the patent laws of the United States, 35 U.S.C. §§ 101 *et seq.*

5. LG is in the business of supplying mobile devices, such as smartphones and tablets, in the United States.

6. LG has solicited business in the State of Texas, transacted business within the State of Texas and attempted to derive financial benefit from residents of the State of Texas, including benefits directly related to the instant patent infringement cause of action set forth herein.

7. LG has made, used, sold, offered for sale, and/or imported mobile phones and/or has placed such phones in to the stream of commerce, which phones have been offered for sale, sold, and/or used in the State of Texas and this judicial district.

8. At the time of filing of this Complaint, LG's mobile phones are available for purchase by consumers in Texas, including within this judicial district.

9. LG has made, used, sold, offered for sale, and/or imported wireless mobile communication devices that are alleged herein to infringe the patent set forth herein, and/or has placed such devices into the stream of commerce, which devices have been made, offered for sale, sold, and/or used in the State of Texas and within this judicial district.

10. LG has sold products in this judicial district that are accused of infringement in this Complaint.

11. LGE is subject to personal jurisdiction in Texas and in this judicial district.

12. LGEUS is subject to personal jurisdiction in Texas and in this judicial district.

13. LG is subject to personal jurisdiction under the provisions of the Texas Long Arm Statute, Tex. Civ. Prac. & Rem. Code § 17.041 *et seq.*, by virtue of the fact that, upon information and belief, LG has availed itself of the privilege of conducting and soliciting business within the State, including engaging in at least some of the infringing activities in this State, as well as by others acting as LG's agents and/or representatives, such that it would be reasonable for this Court to exercise jurisdiction consistent with principles underlying the U.S. Constitution, and the exercise of jurisdiction by this Court would not offend traditional notions of fair play and substantial justice.

14. LG has also established minimum contacts with this judicial district and regularly transacts and does business within this district, including advertising, promoting and selling products over the internet, through intermediaries, representatives and/or agents located within this judicial district, that infringed Plaintiff's patent, which products were then sold and/or shipped directly to citizens residing within this State and in this judicial district. LG has purposefully directed activities at citizens of this State including those located within this judicial district.

15. LG has purposefully and voluntarily placed its products into the stream of commerce with the expectation that they will be purchased and used by customers located in the State of Texas and this district. LG's customers in this district have purchased and used LG's products.

16. Venue as to LGE, a foreign corporation, is proper in this judicial district under 28 U.S.C. §§ 1391(b)-(d) and 1400(b).

17. Venue as to LGEUS is proper in this judicial district under 28 U.S.C. §§ 1391(b)-(c) and 1400(b) at least because it has committed acts of infringement in this judicial district and

in view of its facilities located in this judicial district at 2153-2155 Eagle Pkwy, Fort Worth, TX 76177 and 14901 Beach St., Fort Worth, TX 76177, which constitute regular and established places of business in which business on behalf of LG is conducted.

18. Venue is proper in this federal judicial district pursuant to 28 U.S.C. §§ 1391(b)-(c) and 1400(b) in that LG has done business in this district and has committed acts of infringement in this district, entitling Plaintiff to relief.

#### **THE PATENT-IN-SUIT**

19. On January 20, 2004, U.S. Patent No. 6,680,923, entitled “Communication System and Method” (“the ’923 Patent”), was duly and legally issued to inventor Robert Leon. A true and correct copy of the ’923 Patent is attached hereto as Exhibit 1.

20. Plaintiff is the owner by assignment of the ’923 Patent, with full and exclusive right to bring suit to enforce it, including the right to sue for and recover all past infringement of the ’923 Patent.

21. The ’923 Patent relates to seamless fixed mobile convergence, which allows a seamless “hand off” between over-the-air networks (“OTAN”) and internet-connected computer networks.

22. More specifically, the ’923 Patent discloses and claims a data communication system wherein a wireless communication device, like a smartphone, switches seamlessly between an OTAN, such as cellular service, and an internet-connected network, such as Wi-Fi or a hotspot.

23. As the wireless communication device moves within the vicinity range of an internet-connected network, communications are handed over from the OTAN to the internet-connected network, and vice versa as the wireless communication device moves outside that range.

24. These handovers between an OTAN and an internet-connected network occur automatically by a switching algorithm that uses the vicinity range (such as, for example, a zone of pre-determined distance or relative location) from the wireless communication device to the internet-connected network as a parameter in determining when to switch data communications between the OTAN and the internet-connected network.

25. The innovation of the '923 Patent allows a device like a cellphone to seamlessly switch between a cellular network and any given Wi-Fi network based on the vicinity range to the network as a parameter.

26. The '923 Patent offers numerous benefits to users. These include, but are not limited to, the following:

- a. Automatic, seamless transition between OTAN and internet-connected networks;
- b. Reduced power consumption and increased battery life;
- c. Improved customer experience due to improved performance of handover back and forth between Wi-Fi and cellular connectivity;
- d. Increased offload of customer data traffic from cellular to Wi-Fi connections;
- e. Increased savings by customers due to connectivity to Wi-Fi networks rather than accessing cellular networks.
- f. Increased user security due to ability to geofence within a physical vicinity.

### **Count I:**

#### **Infringement of U.S. Patent No. 6,680,923 (“’923 Patent”)**

27. All preceding factual allegations above are incorporated as if fully set forth herein.

28. The '923 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

29. LG directly infringed the '923 Patent, in violation of 35 U.S.C. § 271(a) by making, using, selling, offering for sale, or importing into the United States infringing products, including mobile devices and their associated components (“Accused Products”).

30. The Accused Products include at least the following devices and their variants: Aristo 2, Candy, G Pad 5 10.1, G Pad IV 8.0 FHD, G6, G7 Fit, G7 One, G7 ThinQ, G8 ThinQ, G8S ThinQ, G8X ThinQ, Harmony, K3, K4, K7, K8, K10, K11 Plus, K20, K20 plus, K30, K40, K40S, K41S, K50, K50S, K51S, K61, Q Stylo 4, Q Stylus, Q6, Q7, Q8, Q9, Q51, Q60, Q70, Stylo 3 Plus, Stylo 5, Stylo 6, Stylus 3, Tribute Empire, V30, V30S ThinQ, V35 ThinQ, V40 ThinQ, V50 ThinQ 5G, V50S ThinQ 5G, V60 ThinQ 5G, V60 ThinQ 5G UW, Velvet, Velvet 5G, W10, W10 Alpha, W30, W30 Pro, X power 3, X power2, X venture, X4+, and Zone 4. The Accused Products also include other smartphones and tablets incorporating Android Version 5.1 or later, including smartphones that LG caused to download or install one or more updates of Android Version 5.1 or later from servers owned or operated by or at the direction of LG.

31. For example, the Accused Products practiced the elements of Claim 11 of the '923 Patent by LG either having directly performed claimed step(s), or having programmed the Accused Products to automatically execute every step that LG did not perform directly, thereby making the performance of all steps attributable to LG.<sup>1</sup>

A method of hybrid communication utilizing a multi-frequency wireless communication device and an Internet access facility, said method comprising:

- a) establishing communication between the Internet access facility and the wireless communication device when both are located within a pre-establish[ed] vicinity range,
- b) communicating data to the wireless communication device over [t]he Internet through the Internet access facility,
- c) alterna[tively] establishing data communication with the wireless communication device by a compatible over-the-air network when the Internet access facility and the wireless communication device are disposed outside of the pre-established vicinity range, and

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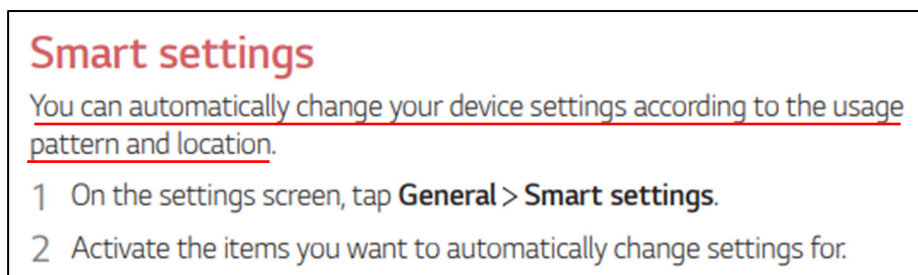
<sup>1</sup> Claim 11 is referenced herein for exemplary purposes. Plaintiff intends to identify additional asserted claims and reserves its right to provide greater detail and scope via its Infringement Contentions at the time required under this Court's scheduling order.

d) automatically switching messaging communication with said wireless communication device between the Internet and the over-the-air network dependent at least on said wireless communication device being inside or outside said pre-established vicinity range relative to the Internet access facility.

32. LG included hardware and software systems in the Accused Products that performed a method of hybrid communication utilizing a multi-frequency wireless communication device and an Internet access facility. The Accused Products are multi-frequency wireless communication devices configured to communicate with Internet access facilities in the form of Wi-Fi Access Points, such as routers.

33. As recited by Claim 11, the Accused Products established communication between the Internet access facility and the wireless communication device when both were located within a pre-established vicinity range.

34. For example, the Accused Products included a software feature known as “Smart Settings,” which was originally released by LG in 2015. This function enabled or disabled connections to a Wi-Fi Access Point based on whether a user’s device was within a pre-established vicinity range of an automatically detected or user-defined location, such as a home.



*E.g., LG, User Guide: LG-US997/US997U, available at <https://www.lg.com/us/support/manuals-documents> (last accessed Sept. 30, 2024).*

### What is Smart Settings?



#### Function

1. With Smart Settings, you can have turn apps and features on or off, open, or change according to where you are or what you do.
2. For example, you can access Wi-Fi network when you come home. You can also plug in earphones and listen to music. Go to Smart Settings under Settings to view more.  
Your mobile phone settings change automatically according to your mobile phone usage and place of usage.

See LG, [LG G4] *What is Smart Settings?*, available at <https://www.lg.com/my/support/product-help/CT20180022-1433761758556> (last accessed Sept. 30, 2024).

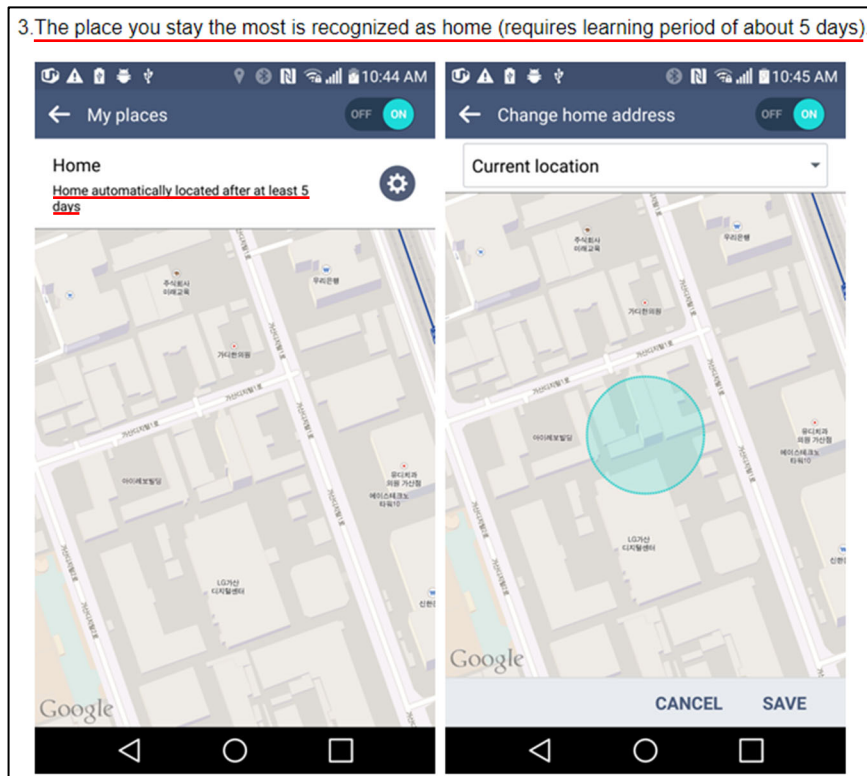
### What is My Place in Smart Settings?



#### Function

1. It analyzes the place you stay the most and recognizes it as My Place automatically.

See LG, [LG G4] *What is Smart Settings?*, available at <https://www.lg.com/my/support/product-help/CT20180022-1433762400169> (last accessed Sept. 30, 2024).



*Id.*



35. The steps carried out by LG and its Accused Products to establish communication with Wi-Fi Access Points, including the functionality enabled by LG's Smart Settings, were attributable to LG.

36. As another example, the Accused Products initiated Fine Timing Measurement ("FTM") capability checks, in accordance with the IEEE 802.11 standard, when establishing a connection to a Wi-Fi Access Point.

37. In doing so, the Accused Products exchanged messages under the FTM protocol and used these messages to calculate distance to the Wi-Fi Access Point. The Accused Products considered these distance measurements as a parameter to calculate a maximum allowable distance within which the Accused Products could engage in normal Wi-Fi data communications with the Wi-Fi Access Point.

38. By design, the distance measurements were performed by LG's Accused Products themselves, as opposed to being performed by Wi-Fi Access Points, to ensure privacy to users. In other words, LG's devices were responsible for making the determination of whether the Wi-Fi Access Point was within a pre-established vicinity range.

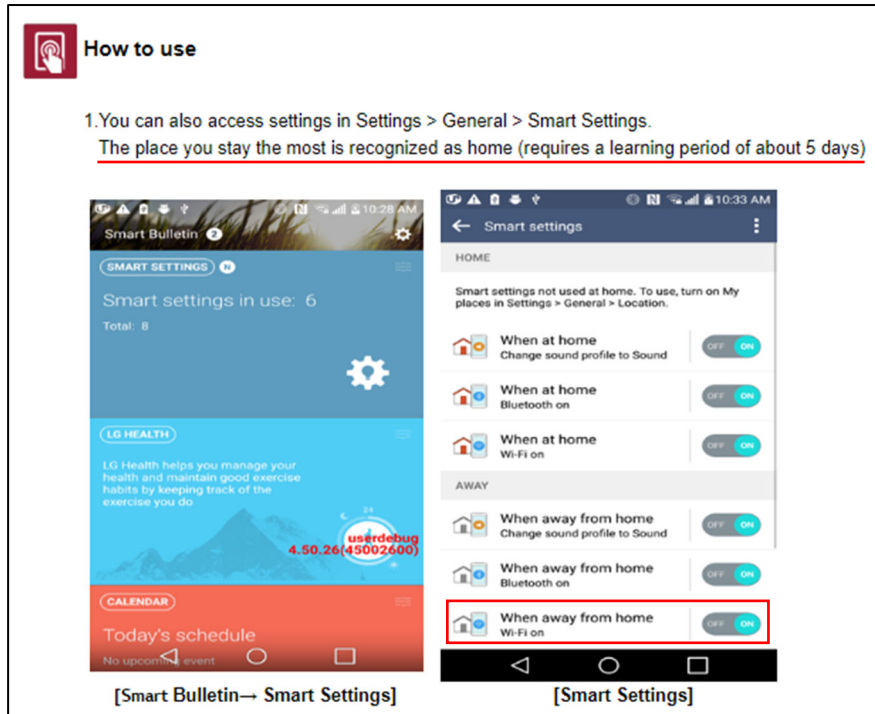
39. As further recited by Claim 11, LG communicated data to the Accused Products, which are wireless communication devices, over the Internet through the Internet access facility. LG's smartphones and tablets accessed the Internet using transceivers that exchange data with Wi-Fi networks.

| CONNECTIVITY  |  |  |  |
|---|--|--|--|
| <b>File and Photo Transfer via MTP</b>  | ****   | *  | ***  |
| Yes   | HD Voice required on both caller and receiver devices.   | 4G LTE network not available everywhere.                                   | Depends on network availability. Additional carrier charges may apply. |
| <b>MIDI Device</b>  | *****  | <b>Mobile Hotspot</b>  | <b>GPS Services for Location Accuracy</b>                              |
| Connect to compatible musical instruments via USB*****  | USB cable required (included).   | Share a 4G LTE data connection with up to 8 compatible wireless devices*** | Yes  |
| <b>Bluetooth® Tethering</b>   | **   | <b>Bluetooth® Wireless Technology</b>                                      | <b>Wi-Fi® Connectivity</b>   |
| Share your phone's Internet connection with your computer and other Bluetooth-capable devices | Wireless service required. Product features subject to change. Features based on carrier program availability. Additional charges may apply. | Yes  | 802.11 a/b/g/n/ac  |

See, e.g., LG, *LG US997 Platinum Unlocked*, available at <https://www.lg.com/us/cell-phones/lg-US997-Platinum-Unlocked> (last accessed Sept. 30, 2024).

40. As further recited by Claim 11, the Accused Products alternatively established data communication with the wireless communication device by a compatible over-the-air network when the Internet access facility and the wireless communication device were disposed outside of the pre-established vicinity range.

41. For example, LG provided functionality under the Smart Settings feature to disable Wi-Fi connectivity when a user's device was outside the pre-established vicinity range of an automatically detected or user-defined location, such as a home.



See LG, [LG G4] *What is Smart Settings?*, available at <https://www.lg.com/my/support/product-help/CT20180022-1433761758556> (last accessed Sept. 30, 2024).

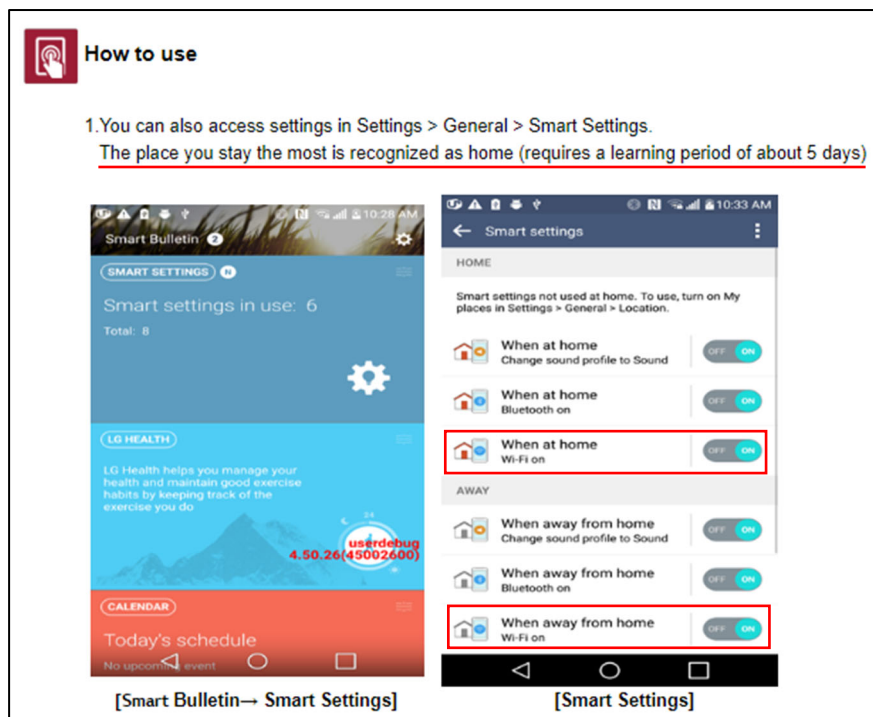
42. As another example, the Accused Products established data communication over a cellular network as they moved a sufficient distance away from the Wi-Fi Access Point to which they were connected. After disconnecting from the Wi-Fi Access Point, LG's Accused Products connected to an OTAN to continue data communications over a cellular network.

| ^ TECHNICAL SPECIFICATIONS  |  |   |   |
|---|--|---|---|
| <b>Internal Memory</b>  | <b>Data Transmission</b>   | <b>Platform</b>   | <b>Size &amp; Weight</b>                            |
| 32 GB (up to 20.5 GB usable)  | EVDO, UMTS, EVDO Rev A, GSM, 1xRTT, LTE  | Android 7.0 (Nougat)  | 5.86" (H) x 2.83" (W) x 0.31" (D); Weight: 5.75 oz. |
| <b>Standby Time</b>   | <b>Technology</b>  | <b>Processor</b>  | <b>Carrier</b>                                      |
| Up to 16.6 days*  | CDMA, WCDMA, GSM, UMTS, LTE  | Qualcomm Snapdragon™ 821<br>2.35 GHz + 1.6 GHz Quad-Core<br>Custom 64-bit Qualcomm<br>Kryo™ | Unlocked  |
| <b>Display</b>  | <b>Frequencies</b>   | <b>RAM</b>  | <b>Talk Time</b>                                    |
| 5.7" QHD Plus FullVision (2880 x 1440) with 564 ppi and 18:9 Aspect Ratio | CDMA 1.9 GHz CDMA PCS, 800 MHz Analog, 800 MHz CDMA; GSM 850/900/1800/1900 MHz; UMTS Bands 1/2/4/5/8; LTE Bands 1/2/3/4/5/7/12/13/17/20/25 | 4 GB  | Up to 20.5 hours*                                   |
| <b>Network</b>  | <b>Available Colors</b>  | <b>Battery Capacity</b>   | <b>Usage Time</b>                                   |
| CDMA, GSM, LTE, LTE CA  | Platinum, Black  | 3,300 mAh Non-Removable   | Up to 36 hours*                                     |

E.g., LG, *LG G6 Unlocked in Platinum*, available at <https://www.lg.com/us/cell-phones/lg-US997-Platinum-Unlocked> (last accessed Sept. 30, 2024).

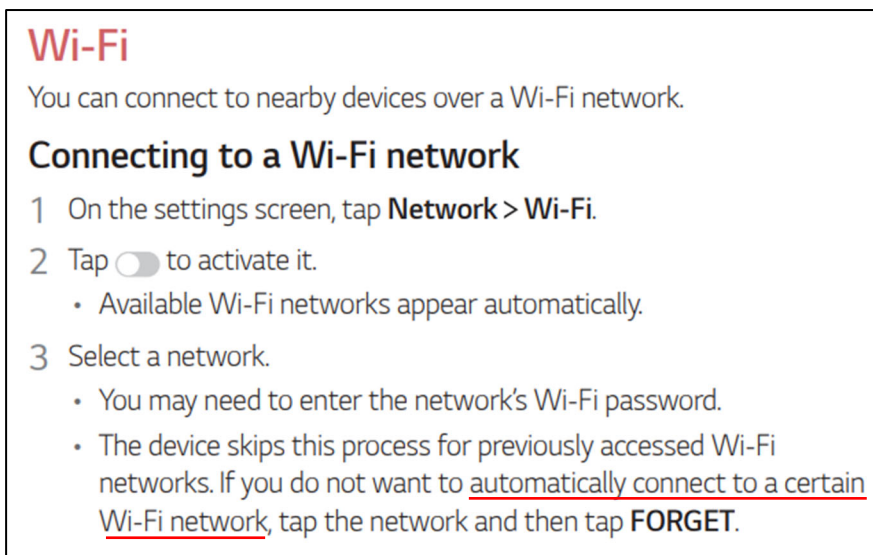
43. As further recited by Claim 11, the Accused Products automatically switched messaging communication between the Internet and the over-the-air network dependent at least on the Accused Products being inside or outside said pre-established vicinity range relative to the Internet access facility.

44. For example, LG's Smart Settings included settings that allowed a user's device to automatically switch messaging communication between the Internet and the over-the-air network, depending on whether the Accused Products were inside or outside the pre-established vicinity range of an automatically detected or user-defined location, such as the user's home.



See LG, [LG G4] *What is Smart Settings?*, available at <https://www.lg.com/my/support/product-help/CT20180022-1433761758556> (last accessed Sept. 30, 2024).

45. As another example, the Accused Products used additional algorithms that automatically executed the switch between a Wi-Fi and OTAN network without requiring user input. On information and belief, such decisions to automatically switch employed a measured distance parameter to determine whether the device was inside or outside a pre-established vicinity range.



*E.g., LG, User Guide: LG-US997/US997U, available at <https://www.lg.com/us/support/manuals-documents> (last accessed Sept. 30, 2024).*

46. LG is further liable for indirect infringement of the '923 Patent by actively inducing third-party users, including its customers in the United States and in this District, to perform infringing use of the Accused Products despite the fact that LG knew, or at least should have known, about the '923 Patent, and that inducing use of the Accused Products in the manner set forth above constituted infringement of the '923 Patent.

47. In addition, or in the alternative, LG is further liable for indirect infringement of the '923 Patent by contributorily infringing via the import, sale, and/or offer to sale of the Accused Products, in the United States and in this District, which constituted a material part of the claimed invention and were not staples of articles of commerce suitable for substantial non-infringing use.

48. LG committed these infringing activities without license. LG's acts of infringement have damaged Plaintiff, as owner of the '923 Patent. Plaintiff is entitled to recover from LG the damages it has sustained as a result of LG's wrongful acts in an amount subject to proof at trial.

#### **JURY DEMAND**

49. Plaintiff hereby demands a trial by jury on all issues.

**PRAYER**

Wherefore, Plaintiff prays for entry of judgment as follows:

- a. A judgment in favor of Plaintiff that LG has infringed the '923 Patent either literally and/or under the doctrine of equivalents, directly and/or indirectly by inducing infringement and/or by contributory infringement;
- b. An award of damages in favor of Plaintiff adequate to compensate Plaintiff for LG's infringement of the '923 Patent which shall in no event be less than a reasonable royalty, together with interest and cost as fixed by the court pursuant to 35 U.S.C. § 284;
- c. An award of attorneys' fees pursuant to 35 U.S.C. § 285 or as otherwise permitted by law in an amount deemed just and appropriate by the Court;
- d. An award of costs and expenses as deemed appropriate by the Court; and
- e. Any other legal or equitable relief to which Plaintiff is justly entitled.

Dated: October 18, 2024

Respectfully submitted,

*/s/ Jason S. McManis*

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