

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
MIDLAND/ODESSA DIVISION**

HEADWATER RESEARCH LLC,

Plaintiff,

v.

APPLE INC.,

Defendant.

Case No. 7-25-cv-00318

Complaint for Patent Infringement

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Headwater Research LLC (“Headwater”) files this complaint against Defendant Apple Inc. (“Apple”) alleging infringement of U.S. Patent Nos. 8,667,571 and 10,064,055. The Accused Instrumentalities are mobile electronic devices, such as mobile phones, tablets, wearables, and television devices, as well as servers used, made, offered for sale, sold, and/or imported by Apple in the United States and supplied by Apple to customers in the United States. The Accused Instrumentalities include Apple’s Apple Push Notification service (APNs) which uses “remote notifications (also known as *push notifications*) to push small amounts of data to devices that use your app, even when your app isn’t running.” *See* <https://developer.apple.com/documentation/usernotifications/setting-up-a-remote-notification-server> (last visited July 17, 2025). Communications “must take place over a secure connection.” *See id.* The provider (or app) server must establish a connection with the APNs server. <https://developer.apple.com/documentation/usernotifications/establishing-a-connection-to-apns> (last visited July 17, 2025). Apple provides instructions to providers, including app developers, on the use of its APNs. *See, e.g., id.*

BACKGROUND REGARDING HEADWATER AND DR. RALEIGH

1. This complaint arises from Apple’s unlawful infringement of U.S. Patent Nos. 8,667,571 (“’571 patent”) and 10,064,055 (“’055 patent”) (collectively, “Asserted Patents”).

2. Dr. Gregory Raleigh—the primary inventor of the Asserted Patents—is a world-renowned scientist, inventor, and entrepreneur, with over 25 years of executive experience in several technology sectors including networking, cloud software, consumer services, wireless and military systems. Dr. Raleigh holds Ph.D. and Masters degrees in Electrical Engineering from Stanford University, and is the inventor of over 350 issued U.S. and international patents in several fields including radio systems and components, radar, mobile operating systems, cloud services, IoT, networking, consumer electronics, radiation beam cancer therapy and medical imaging.

3. Dr. Raleigh has a long and distinguished record of significant contributions and advancements in wireless communications technology. His inventions, companies, and products have profoundly and positively impacted virtually every aspect of the mobile device and communications market. In 2005, Dr. Raleigh was named one of the “50 most powerful people in networking” because of his discoveries in wireless technology, and his work in multiplying the capacity of a radio link using multiple transmission and receiving antennas to exploit multipath propagation was described as the “most important wireless technology in the works.” *See* <https://web.archive.org/web/20220628132409/https://www.networkworld.com/article/2316916/the-50-most-powerful-people-in-networking.html?page=2>.

4. In 1996, while at Stanford University, Dr. Raleigh presented the first mathematical proof demonstrating that multiple antennas may be used with special signal processing techniques to transmit multiple data streams at the same time and on the same frequency while in the presence of naturally occurring multipath propagation. Dr. Raleigh’s work at Stanford has been widely

adopted in modern multiple-input and multiple-output (“MIMO”) radio communication and implemented in major wireless communication standards including 4G and 5G. *See, e.g.,* https://en.wikipedia.org/wiki/Gregory_Raleigh.

5. Dr. Raleigh’s groundbreaking work solved problems that had existed in wireless communication since the late 1800s and overturned a century of research and practice in the fields of radio science and wireless communication theory. His work revealed that a new class of MIMO signal processing architectures would allow wireless devices to transmit multiple data streams at the same time on the same frequency thereby multiplying the capacity of wireless networks.

6. Based on his discoveries, Dr. Raleigh co-founded Clarity Wireless to develop smart antenna products incorporating the advances of his MIMO signal processing architecture, and obtained patents now used in 4G and 5G cellular and Wi-Fi standards. Field trials of the smart antennas developed by Clarity Wireless demonstrated performance significantly above anything else contemplated at the time and continue to set standards for multipath broadband wireless access links. Shortly after those field trials, Cisco acquired Clarity in 1998 and hired Dr. Raleigh to continue to commercialize these technologies.

7. After leaving Cisco, Dr. Raleigh founded Airgo Networks to develop the world’s first MIMO wireless chipsets, networking software, reference design systems and commercial OEM products. Airgo Networks’ chipset products significantly improved the speed and reliability of Wi-Fi, leading to the adoption of its technology as the core of Wi-Fi radio standards since 2006, and adoption of the chipsets into products sold across the globe. In 2006, Qualcomm acquired Airgo Networks and hired Dr. Raleigh to continue to commercialize these technologies. The Airgo team at Qualcomm spearheaded the creation of Wi-Fi standards and developed the first Qualcomm Wi-Fi chips for cell phones.

8. Dr. Raleigh's innovations at Clarity Wireless, Cisco, Airgo Networks, and Qualcomm, resulted in widespread adoption of his technologies in a multitude of cellular and Wi-Fi standards, such as LTE, WiMAX, 802.11n, 802.11ac (Wi-Fi 5), and 802.11ax (Wi-Fi 6).

9. After successfully founding and selling Clarity Wireless and Airgo Networks to Cisco and Qualcomm, respectively, Dr. Raleigh shifted his focus from solving radio-centric problems to solving problems in how wireless services are provided to consumers. Dr. Raleigh foresaw significant data demand problems presented by the advent and adoption of smartphones. He sought to solve these data demand problems by improving end-user wireless devices and the services that support them.

10. In 2008, Dr. Raleigh formed Headwater to develop mobile operating systems and cloud technology, which today, underpin the mobile phone and app industries. The patents in this action describe and claim some of the extraordinary inventions developed by Dr. Raleigh.

PLAINTIFF HEADWATER AND THE ASSERTED PATENTS

11. Plaintiff Headwater was formed in 2011 and has been in continued existence and operation since that time. Headwater is a Texas limited liability company organized under the laws of Texas, with its headquarters at 110 North College Avenue, Suite 1116, Tyler, Texas 75702.

12. Headwater is the owner of U.S. Patent No. 8,667,571, titled "Automated device provisioning and activation," which issued March 4, 2014. Ex. 1.

13. Headwater is the owner of U.S. Patent No. 10,064,055, titled "Security, fraud detection, and fraud mitigation in device-assisted services systems," which issued August 28, 2018. Ex. 2.

14. The Asserted Patents are valid and enforceable.

A. U.S. Patent No. 8,667,571

15. The '571 patent is directed to novel and unconventional improvements to methods performed by a network system by allowing for a secure solution that could support the delivery of messages from multiple application servers to end-user devices.

16. Dr. Raleigh's testimony will show that the claimed invention was not conventional and stemmed from his unconventional approach of using a novel network system to connect various application servers for the delivery of requests and messages in a secure manner to the end-user devices.

17. Expert testimony of Mr. Erik de la Iglesia will show the claimed invention was not conventional, routine, or well-understood based on at least the recognition in the '571 patent of the problem in the field that "[t]here is a need for a communication system and method that provides for flexible service plans and management of user network services to provide consumer choice of more refined service plan offerings and efficient management of network capacity." '571 patent at 6:11-15. The claimed invention is to an unconventional method of securely delivering data to end-user applications using a device with a plurality of device agents. *See, e.g., id.* at Figs. 16-20 and accompanying text. Credentials are used to securely communicate to device agents in the end-user devices. *See, e.g., id.* at 138:18-49.

18. The '571 patent therefore provides improvements over prior systems that result in substantial benefits to Apple, including in reaping substantial revenues and competitive advantages from its infringement of the '571 patent.

B. U.S. Patent No. 10,064,055

19. The '055 patent is directed to novel and unconventional improvements to a method of operating a network system by providing Device Assisted Services (DAS) for a secure solution

that could support the delivery of an application credential to an end-user device.

20. Dr. Raleigh's testimony will show that the claimed invention was not conventional and stemmed from his unconventional DAS-approach of using a novel network system to connect applications for the delivery of requests and messages in a secure manner to the end-user device.

21. Expert testimony of Mr. Erik de la Iglesia will show the claimed invention was not conventional, routine, or well-understood based on at least the recognition in the '055 patent of the problem in the field that "there is a need to secure software and hardware, in both end-user devices and in network elements, involved in the provision of device-assisted services." '055 patent at 1:53-55. The claimed invention is to an unconventional method of delivering data to end-user applications in a secure manner. *See, e.g., id.* at 38:24-28 ("[T]he credentialing function enhances the security of DAS systems. In some embodiments, credential application server 146 receives a request from end-user device 100 (e.g., using service processor 115) for a credential.").

22. The '055 patent therefore provides improvements over prior systems that result in substantial benefits to Apple, including in reaping substantial revenues and competitive advantages from its infringement of the '055 patent.

DEFENDANT APPLE AND THE ACCUSED INSTRUMENTALITIES

23. On information and belief, Defendant Apple Inc. is a publicly traded corporation organized under the laws of the State of California, with its principal place of business at One Apple Park Way, Cupertino, CA 95014. Apple has one or more regular and established places of business in this District, including at 12545 Riata Vista Circle, Austin, TX 78727; 6900 W Parmer Lane, Austin, TX 78729; 320 S. Capital of Texas Hwy, West Lake Hills, TX 78746; 7400 San Pedro Avenue, San Antonio, TX 78216; 3121 Palm Way, Austin, TX 78758; 15900 La Cantera Parkway, San Antonio, TX 78256; 8401 Gateway Boulevard West, El Paso, TX 79925; and 2901

S Capital of Texas Hwy, Austin, TX, 78746. Apple may be served with process through its registered agent, C T Corporation System 1999 Bryan St., Suite 900, Dallas, TX 75201.

24. The Accused Instrumentalities are mobile electronic devices, such as mobile phones, tablets, wearables, and television devices, as well as servers used, made, offered for sale, sold, and/or imported by Apple in the United States and supplied by Apple to customers in the United States.

JURISDICTION AND VENUE

25. This action arises under the patent laws of the United States, 35 U.S.C. § 1 et seq.

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

27. This Court has personal jurisdiction over Apple in this action because Apple has committed acts of infringement within this District giving rise to this action, has a regular and established place of business in this District, and has established minimum contacts with this forum such that the exercise of jurisdiction over Apple would not offend traditional notions of fair play and substantial justice. Apple, directly and/or through subsidiaries or intermediaries, conducts its business extensively throughout Texas, by shipping, distributing, offering for sale, selling, and advertising its products and/or services in Texas and the Western District of Texas, regularly does business or solicits business, engages in other persistent courses of conduct, and/or derives substantial revenue from products and/or services provided to individuals in Texas, and commits acts of infringement of Headwater's patents in this District by, among other things, supplying, distributing, developing, making, using, offering to sell, and selling Apple devices and services.

28. Venue is proper in this District under 28 U.S.C. §§ 1391 and 1400(b). On information and belief, Apple resides in this District and/or has committed acts of infringement

and has a regular and established place of business in this District.

29. Apple maintains a significant physical presence and employs many people in this District. In November 2019, Apple stated that it had approximately 7,000 employees in the city and “has broken ground on its new \$1 billion, 3-million-square-foot campus” expected to open in 2022 that “will initially house 5,000 employees, with the capacity to grow to 15,000.” *See* <https://www.apple.com/newsroom/2019/11/apple-expands-in-austin/> (last accessed July 17, 2025).

30. Further, in January 2023, it was reported that “Apple has filed projects totaling \$240 million for an expansion of its north Austin campus.” <https://www.mysanantonio.com/business/article/tesla-apple-austin-expansion-17708535.php> (last accessed July 17, 2025). Further, “Apple is adding 419,441 square-feet of office space” with constructing that began on September 30, 2023, and which was estimated at the time to be completed on March 30, 2025. *Id.*

31. On information and belief, Apple operates APNs servers in this District, which act as the always-on APNs ingress and egress points for Apple devices in this District. These servers maintain the persistent channel between those Apple devices and the APNs server through which push messages are sent to the intended devices.

32. On information and belief, Apple employs engineering, product-operations, service and support, and marketing teams at its Austin campus—including personnel working with APNs. Apple “has a three-million square foot campus in northwestern Austin with employees in engineering, research and development, operations and customer support roles.” <https://www.kxan.com/news/local/austin/apple-plans-new-ai-server-factory-in-texas-as-part-of-500b-plan/> (last accessed July 17, 2025). *See also, e.g.,* <https://www.apple.com/careers/us/work->

at-apple/austin.html (last accessed July 17, 2025) (advertising careers in Austin, Texas which include roles ranging from Software Engineer to Sales and Business Development).

33. From their offices in this District, those employees create, schedule, and transmit push-notification campaigns, e.g., for app developers with whom they collaborate.

34. On information and belief, app developers such as Instagram, WhatsApp, Bumble, Badoo, Vrbo, RetailMeNot, Indeed, and Atlassian use Apple's infringing APNs system in this District to send messages to apps on Apple devices in this District.

COUNT 1 – INFRINGEMENT OF THE '571 PATENT

35. Headwater incorporates by reference each of the allegations in the foregoing paragraphs as if fully set forth herein and further alleges as follows:

36. On March 4, 2014, the United States Patent and Trademark Office issued U.S. Patent No. 8,667,571, titled "Automated device provisioning and activation."

37. Headwater is the owner of the '571 patent with full rights to pursue recover of royalties for damages for infringement, including full rights to recover past and future damages.

38. The written description of the '571 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the nonconventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

39. Headwater and its predecessors in interest have satisfied the requirements of 35 U.S.C. § 287(a) with respect to the '571 patent, and Headwater is entitled to damages for Apple's past infringement.

40. Apple has directly infringed (literally and equivalently) and induced others to

infringe the '571 patent by making, using, selling, offering for sale, or importing products that infringe the claims of the '571 patent and by inducing others to infringe the claims of the '571 patent without a license or permission from Headwater, such as for example inducing any app developers to use the infringing APNs system.

41. Exhibit 3 provides a description of the Accused Instrumentalities and a chart showing how they infringe claim 1 of the '571 patent, which Headwater provides without the benefit of information about the Accused Instrumentalities obtained through discovery.

42. Apple knowingly and intentionally induces and contributes to infringement of the '571 patent in violation of 35 U.S.C. §§ 271(b)-(c). For example, Apple has had knowledge of or has been willfully blind to the '571 patent and the infringing nature of the Accused Instrumentalities at least because the ItsOn software included a patent marking notice which listed the '571 patent, and through at least the filing and service of this Complaint.

43. Despite this knowledge, Apple continues to actively encourage and instruct their customers to use and integrate the Accused Instrumentalities in ways that directly infringe the '571 patent. Apple does so knowing and intending that their customers will commit these infringing acts. Apple also continues to make, use, offer for sale, sell, and/or import the Accused Instrumentalities, despite its knowledge of the '571 patent, thereby specifically intending for and inducing their customers to infringe the '571 patent through the normal and customary use of the Accused Instrumentalities. On information and belief, these acts include providing information and instructions on the use of the Accused Instrumentalities; providing information, education and instructions to their customers; and indemnifying patent infringement within the United States.

44. Apple has known, or has been willfully blind to the fact, that making, using, offering to sell, and selling the Accused Instrumentalities to their customers, would constitute

willful infringement of the '571 patent.

45. Headwater has been damaged by Apple's infringement of the '571 patent and is entitled to damages as provided for in 35 U.S.C. § 284, including reasonable royalty damages.

COUNT 2 – INFRINGEMENT OF THE '055 PATENT

46. Headwater incorporates by reference each of the allegations in the foregoing paragraphs as if fully set forth herein and further alleges as follows:

47. On August 28, 2018, the United States Patent and Trademark Office issued U.S. Patent No. 10,064,055, titled "Security, fraud detection, and fraud mitigation in device-assisted services systems."

48. Headwater is the owner of the '055 patent with full rights to pursue recover of royalties for damages for infringement, including full rights to recover past and future damages.

49. The written description of the '055 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the nonconventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

50. Headwater and its predecessors in interest have satisfied the requirements of 35 U.S.C. § 287(a) with respect to the '055 patent, and Headwater is entitled to damages for Apple's past infringement.

51. Apple has directly infringed (literally and equivalently) and induced others to infringe the '055 patent by making, using, selling, offering for sale, or importing products that infringe the claims of the '055 patent and by inducing others to infringe the claims of the '055 patent without a license or permission from Headwater, such as for example inducing any

app developers to use the infringing APNs system.

52. Exhibit 4 provides a description of the Accused Instrumentalities and a chart showing how they infringe claim 1 of the '055 patent, which Headwater provides without the benefit of information about the Accused Instrumentalities obtained through discovery.

53. Apple knowingly and intentionally induces and contributes to infringement of the '055 patent in violation of 35 U.S.C. §§ 271(b)-(c). For example, Apple has had knowledge of or has been willfully blind to the '055 patent and the infringing nature of the Accused Instrumentalities through at least the filing and service of this Complaint.

54. Despite this knowledge, Apple continues to actively encourage and instruct their customers to use and integrate the Accused Instrumentalities in ways that directly infringe the '055 patent. Apple does so knowing and intending that their customers will commit these infringing acts. Apple also continues to make, use, offer for sale, sell, and/or import the Accused Instrumentalities, despite its knowledge of the '055 patent, thereby specifically intending for and inducing their customers to infringe the '055 patent through the normal and customary use of the Accused Instrumentalities. On information and belief, these acts include providing information and instructions on the use of the Accused Instrumentalities; providing information, education and instructions to their customers; and indemnifying patent infringement within the United States.

55. Apple has known, or has been willfully blind to the fact, that making, using, offering to sell, and selling the Accused Instrumentalities to their customers, would constitute willful infringement of the '055 patent.

56. Headwater has been damaged by Apple's infringement of the '055 patent and is entitled to damages as provided for in 35 U.S.C. § 284, including reasonable royalty damages.

JURY DEMAND

57. Headwater demands a jury trial pursuant to Federal Rule of Civil Procedure 38.

RELIEF REQUESTED

Headwater prays for the following relief:

- A. A judgment in favor of Headwater that Apple has infringed the Asserted Patents, and that the Asserted Patents are valid and enforceable;
- B. A judgment and order requiring Apple to pay Headwater past and future damages arising out of Apple's infringement of the Asserted Patents in an amount no less than a reasonable royalty, costs, expenses, and pre- and post-judgment interest, as provided under 35 U.S.C. § 284;
- C. A judgment and order requiring Apple to provide an accounting and to pay supplemental damages to Headwater, including, without limitation, pre-judgment and post-judgment interest;
- D. A judgment that Apple's infringement is willful and enhanced damages and fees as a result of that willfulness under 35 U.S.C. § 284;
- E. A finding that this case is exceptional under 35 U.S.C. § 285, and an award of Headwater's reasonable attorney's fees and costs; and
- F. Any and all other relief to which Headwater may be entitled.

Dated: July 17, 2025

Respectfully submitted,

/s/ Marc Fenster

Marc Fenster

CA State Bar No. 181067

Email: mfenster@raklaw.com

Reza Mirzaie

CA State Bar No. 246953

Email: rmirzaie@raklaw.com

Brian Ledahl

CA State Bar No. 186579
Email: bledahl@raklaw.com

Dale Chang

CA State Bar No. 248657
Email: dchang@raklaw.com

Kristopher Davis

CA State Bar No. 329627
Email: kdavis@raklaw.com

James S. Tsuei

CA State Bar No. 285530
Email: jtsuei@raklaw.com

Jason M. Wietholter

CA State Bar No. 337139
Email: jwietholter@raklaw.com

RUSS AUGUST & KABAT

12424 Wilshire Blvd. 12th Floor

Los Angeles, CA 90025

Telephone: 310-826-7474

**ATTORNEYS FOR PLAINTIFF,
Headwater Research LLC**