UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

Headwater Research LLC, *Plaintiff*, vs. Verizon Communications Inc., Cellco Partnership, d/b/a Verizon Wireless, Verizon Corporate Services Group Inc., *Defendants*.	CASE NO. 2:23-cv-00352 **Complaint for Patent Infringement** **JURY DEMANDED**

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Headwater Research LLC ("Headwater") files this complaint against Defendants Verizon Communications Inc., Cellco Partnership, d/b/a Verizon Wireless, Verizon Corporate Services Group, Inc. (collectively, "Defendants" or "Verizon"), alleging infringement of U.S. Patent Nos. 8,589,541, 8,924,543, 9,198,042, and 9,215,613. The Accused Instrumentalities are mobile electronic devices, including mobile phones and tablets used, offered for sale, sold, and/or imported by Defendants in the United States and supplied by Defendants to customers in the United States as well as cellular networks, servers, and services made, used, offered for sale, sold, and/or imported by Defendants in the United States and supplied by Defendants to customers in the United States.

BACKGROUND

1. This complaint arises from Defendants' infringement of the following United States patents owned by Headwater, each of which relate to wireless communications technology:

United States Patent Nos. 8,589,541 ("the '541 patent"), 8,924,543 ("the '543 patent"), 9,198,042 ("the '042 patent"), and 9,215,613 ("the '613 patent") (collectively, the "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 a BS in Electrical Engineering from Cal Poly San Luis Obispo. He 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 communications 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://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 information-carrying 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's 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), as well as 802.11ax (Wi-Fi 6).

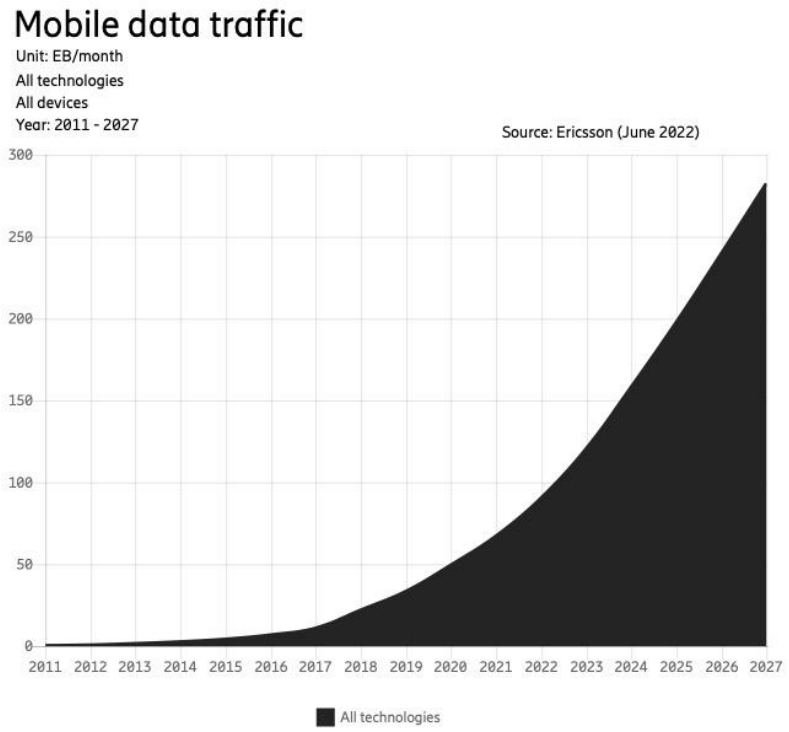
9. After successfully founding and selling Clarity Wireless and Airgo Networks to Cisco and Qualcomm, respectively, Dr. Raleigh shifted his focus from solving radio-centric problems to solving problems in how wireless services are provided to consumers. Dr. Raleigh foresaw significant data demand problems 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.

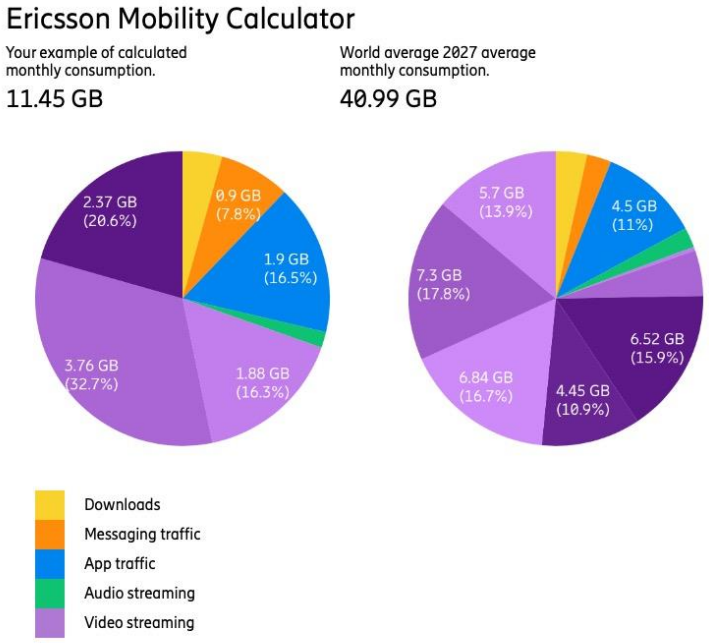
10. In 2008, Dr. Raleigh formed Headwater to develop mobile operating systems and cloud technology, which today, underpin the mobile phone and app industries. The patents in this action describe and claim some of the extraordinary inventions developed by Dr. Raleigh and the Headwater team.

11. Smartphones and other mobile devices have become ubiquitous and inseparable components of our daily lives, allowing us to make and receive phone calls, get notifications, download music, upload photos, stream entertainment, transact business, exchange ideas, and keep us connected to our family and friends whether they are down the hall or around the globe. Users can get email, install apps, and browse the internet from these tiny devices by making use of data connectivity services. These devices accomplish these amazing feats by exchanging staggering amounts of data over the internet using wireless and cellular networks, relying on ubiquitous data connectivity to keep users up-to-date and connected.

12. Since 2011, mobile device data demand has exploded—increasing by almost 400%—with each user consuming approximately 11.5 gigabytes of data per month. In the aggregate, this equates to approximately 90 exabytes of data consumption per month. *See, e.g.*, https://www.ericsson.com/en/reports-and-papers/mobility-report/mobility-visualizer?f=9&ft=2&r=1&t=11,12,13,14,15,16,17&s=4&u=3&y=2011,2027&c=3. For context: a single exabyte of data is equivalent to one billion gigabytes of data. Said another way, if one gigabyte is the size of the Earth, then an exabyte is the size of the sun. *See, e.g.*, https://www.backblaze.com/blog/what-is-an-exabyte/.

13. And mobile device data demand shows no sign of slowing down. Between now and 2027, mobile data demand is projected to increase more than three-fold, from 90 exabytes per month to a staggering 282 exabytes per month, with each user consuming an average of 41 gigabytes of data each and every month. *See, e.g.*, https://www.ericsson.com/en/reports-and-papers/mobility-report/mobility-calculator?up=2&bp=1&v=0&c=2; https://www.ericsson.com/en/reports-and-papers/mobility-report/mobility-visualizer?f=9&ft=2&r=1&t=11,12,13,14,15,16,17&s=4&u=3&y=2011,2027&c=3.


Mobile data traffic
Unit: EB/month
All technologies
All devices
Year: 2011 - 2027
Source: Ericsson (June 2022)
300
250
200
150
100
50
0
2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027
All technologies


Ericsson Mobility Calculator
Your example of calculated monthly consumption.
11.45 GB
World average 2027 average monthly consumption.
40.99 GB
2.37 GB (20.6%)
0.9 GB (7.8%)
1.9 GB (16.5%)
1.88 GB (16.3%)
3.76 GB (32.7%)
5.7 GB (13.9%)
4.5 GB (11%)
7.3 GB (17.8%)
6.52 GB (15.9%)
6.84 GB (16.7%)
4.45 GB (10.9%)
Downloads
Messaging traffic
App traffic
Audio streaming
Video streaming

14. Also in 2008, Dr. Raleigh founded ItsOn Inc., which licensed Headwater's intellectual property and implemented Headwater's technology into software and services that expanded cellular service plan offerings and improved device and data management capabilities. The tools and technologies delivered by ItsOn allowed carriers to implement Headwater's technologies in end-user devices—such as mobile phones and tablets—opening up new business models while also providing greater flexibility to carriers and device manufacturers, allowing them to reduce costs while simultaneously improving their devices and services.

15. The Headwater technologies disclosed in the Asserted Patents laid the groundwork for many of the infringing features and functionalities that help device manufacturers, wireless carriers, and customers reduce data usage and network congestion, extend battery life by decreasing power consumption, and enable users to stay connected.

NOTICE OF THE ASSSERTED PATENTS

16. The patented technologies which are the subject of this lawsuit are well known to Defendants.

17. On or about June 30, 2009, Headwater entered into an NDA with Verizon.

18. On or about July 1, 2009, Headwater provided detailed presentations under the NDA to Verizon personnel including Kyle Malady, Verizon's then VP of Technology Product Development, divulging how Headwater's and ItsOn's technological solutions could solve Verizon's data demand problems while simultaneously opening up new revenue channels for Verizon. These presentations included comprehensive feature roadmaps, prototype timelines, and financial projections discussing how ItsOn's software and Headwater's unique portfolio of intellectual property would benefit Verizon and its customers.

19. In August 2009, Mr. Malady asked Headwater to present to Verizon executives a trial plan for Headwater/ItsOn to demonstrate its technology to Verizon. On or around August 31, 2009, Headwater gave a presentation describing the ItsOn platform as well as a trial plan to Verizon executives.

20. The functionality and solutions presented to Verizon led the parties to consider consummating an exclusive deal between Headwater/ItsOn and Verizon, under which Headwater/ItsOn would scale and implement its technological solutions to assist Verizon with data demand and increase Verizon's revenue streams.

21. In October 2009, Headwater presented Verizon with a Detailed Patent Brief, providing detailed descriptions of Headwater's patent filings relating to the technological solutions Headwater and ItsOn had been discussing with Verizon, including disclosures related to the Asserted Patents.

22. Verizon and Headwater continued to discuss how Headwater's and ItsOn's capabilities and offerings could benefit Verizon and its customers.

23. In October 2009, Thomas Russell—Verizon's then Director of Marketing—prepared and presented a Pilot Objectives presentation for a Verizon/ItsOn pilot project. This presentation detailed product demonstrations and technical testing milestones for implementing the Headwater and ItsOn intellectual property and software.

24. In October 2009, Verizon personnel prepared and presented an Opportunity for Partnership Between ItsOn and Verizon Wireless. Verizon's presentation identified its need for the Headwater/ItsOn solutions, how those solutions could be implemented, and what benefits those solutions would bring to Verizon and its customers.

25. After these presentations and other significant and detailed technical meetings between ItsOn and Verizon, Verizon indicated that it would be integrating the ItsOn solutions to help manage devices and data usage on Verizon's network.

26. In 2010, Verizon and ItsOn entered into a Software License, Evaluation Trial, and Application Programming Interfaces Development Agreement. Under the agreement, Verizon paid ItsOn over $4 million for a license to evaluate ItsOn data usage management software and APIs. Verizon also invested millions into the equity of Headwater and ItsOn.

27. As a result, Headwater and ItsOn shared additional detailed technical information covered by Headwater's pending patents with Verizon's product, IT, technology, and marketing teams.

28. By May 2011, Headwater and ItsOn had developed a Verizon-specific prototype platform and held field trials for Verizon to evaluate the platform and validate its capabilities, including functionality covered by the Asserted Patents. The platform software included a splash page with a notice stating that the platform technologies were covered by several Headwater patents and a link to ItsOn's virtual marking webpage. Each of the asserted '541, '543, and '042 patents was added to that webpage after issuance.

29. In June 2011, Headwater provided an Updated Detailed Patent Brief to Verizon personnel, including Edward Diaz, Executive Director of Product Development & Integration, and Louis Chan, Director of Core Network Services. It provided additional detailed descriptions of Headwater's patent filings relating to the technological solutions Headwater and ItsOn had been disclosing to Verizon, including disclosures related to the Asserted Patents. For example, the presentation notified Verizon that Headwater was obtaining patent protection on: "Application/Content Aware Service Access Control" where "server controls service plan network

access policies that are securely enforced on a networked device" and "service plan policies can be modified based on: amount of service used [and/or] one or more applications"; "Device Assisted QoS" where "device assists in providing QoS differentiated services via secure policy enforcement on device capable of classifying device access network activity by application, OS function, website, content type and applying appropriate QoS policy"; mechanisms for applying "a differential background service policy that prevents background services not being interacted with by the user" based on "the state of user action with a given application"; and "access control" that is "varied according to user interaction state" and "is applied to one or more specific applications."

30. Despite acknowledging that Headwater's and ItsOn's technological solutions would benefit Verizon and its customers—including by helping to reduce data usage and network congestion, extend battery life by decreasing power consumption, and provide additional revenue channels—Verizon ultimately decided to walk away from the opportunity.

31. It was not until 2013 that Headwater and ItsOn began to better understand why. In October 2013, Thomas Russell filed a whistleblower complaint against Verizon. The complaint alleged that Verizon retaliated against Mr. Russell for reporting "illegal and unethical business practices" by Verizon, including "unethical behavior in dealing with [ItsOn]" and "misappropriation of intellectual property (shared by ItsOn under an NDA) in violation of New Jersey and federal law." Exhibit 1 (*Thomas Russell vs. Cellco Partnership d/b/a Verizon Wireless*, Dkt. No. L-1331-13 in the Superior Court of New Jersey, Somerset County Division, September 30, 2013) (the "Whistleblower Complaint").

32. As a result of the filing of the Whistleblower Complaint, Headwater and ItsOn learned about alleged unethical business practices and illegal activities by Verizon related to Headwater's and ItsOn's confidential and proprietary intellectual property. *Id.* at 3. For example,

Headwater and ItsOn learned that Verizon's Product and IT teams allegedly "reverse-engineered the functionality shown by ItsOn." *Id.*

33. Headwater and ItsOn also learned that Verizon allegedly claimed ownership of the technical solutions and offerings that Headwater and ItsOn had shared with Verizon's product, technical, IT, and marketing teams, and had inserted those concepts into Verizon's own internal presentations and talking points under the guise of Verizon's "Advanced Data Services Platform." *Id*. at 3-4.

34. Headwater and ItsOn also learned that these concerns (and others) were shared with Verizon's General Counsel and other Verizon senior leadership and that "several senior leaders" within Verizon allegedly recommended that Verizon "should continue the evaluation and trial work with ItsOn." *Id*. at 4. Verizon nevertheless chose to discontinue its work with Headwater and ItsOn.

35. In January 2016, Verizon subsidiary Verizon Patent and Licensing Inc. filed U.S. Patent Application No. 14/996,543. It included claims directed to selectively blocking or permitting application traffic based on whether it is foreground or background traffic, e.g.:

> 1. A device, comprising:
>
> one or more processors to:
>
> receive a request for a transmission of traffic from an application,
>
> the application being associated with an application identifier;
>
> determine an application category of the application using the application identifier associated with the application;
>
> identify a set of rules associated with the application category,
>
> where the set of rules includes at least one of:
>
> one or more rules associated with foreground traffic, or
>
> one or more rules associated with background traffic; and
>
> selectively block or permit the transmission of traffic, from the application, based on the set of rules.

36. In February 2017, a Notice of References Cited was issued to the Verizon subsidiary regarding its patent application. The notice identified U.S. Patent Application Publication No. 2011/0314145 to Gregory G. Raleigh et al. which had issued as the asserted ’541 patent on November 19, 2013.

37. Over the next several years, Verizon sold devices and provided services which included features and functionalities that were the subject of the Verizon, Headwater, and ItsOn relationship, with technology Verizon learned from ItsOn, and which infringe Headwater’s Asserted Patents.

PLAINTIFF HEADWATER AND THE PATENTS-IN-SUIT

38. 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.

39. Headwater is the owner of U.S. Patent No. 8,589,541, entitled “Device-assisted services for protecting network capacity,” which issued on November 19, 2013. A copy of the ’541 patent is attached to this complaint as Exhibit 2.

40. Headwater is the owner of U.S. Patent No. 8,924,543, entitled “Service design center for device assisted services,” which issued on December 30, 2014. A copy of the ’543 patent is attached to this complaint as Exhibit 3.

41. Headwater is the owner of U.S. Patent No. 9,198,042, entitled “Security techniques for device assisted services,” which issued on November 24, 2015. A copy of the ’042 patent is attached to this complaint as Exhibit 4.

42. Headwater is the owner of U.S. Patent No. 9,215,613, entitled "Wireless end-user device with differential traffic control policy list having limited user control," which issued on December 15, 2015. A copy of the '613 patent is attached to this complaint as Exhibit 5.

DEFENDANTS AND THE ACCUSED INSTRUMENTALITIES

43. On information and belief, Defendant Verizon is a corporation duly organized and existing under the laws of the State of Delaware, with its principal place of business at 1095 Avenue of the Americas, New York, New York 10036. On information and belief, Verizon Communications may be served with process through its registered agent at CT Corporation System, 350 North Street, Dallas, Texas 75201.

44. On information and belief, Defendant Cellco Partnership, d/b/a Verizon Wireless ("Verizon Wireless") is a Delaware partnership, with its principal place of business at One Verizon Way, Basking Ridge, New Jersey 07920. On information and belief, Verizon Wireless is a wholly-owned subsidiary of Verizon Communications.

45. On information and belief, Defendant Verizon Corporate Services Group Inc. ("Verizon Corporate Services") is a corporation organized and existing under the laws of the State of New York, with its principal place of business at One Verizon Way, Basking Ridge, NJ 07920. On information and belief, Verizon Corporate Services is a wholly owned subsidiary of Verizon Communications.

46. The Accused Instrumentalities are mobile electronic devices, including mobile phones and tablets used, offered for sale, sold, and/or imported by Defendants in the United States and supplied by Defendants to customers in the United States as well as cellular networks, servers, and services made, used, offered for sale, sold, and/or imported by Defendants in the United States and supplied by Defendants to customers in the United States.

JURISDICTION AND VENUE

47. This action arises under the patent laws of the United States, Title 35 of the United States Code.

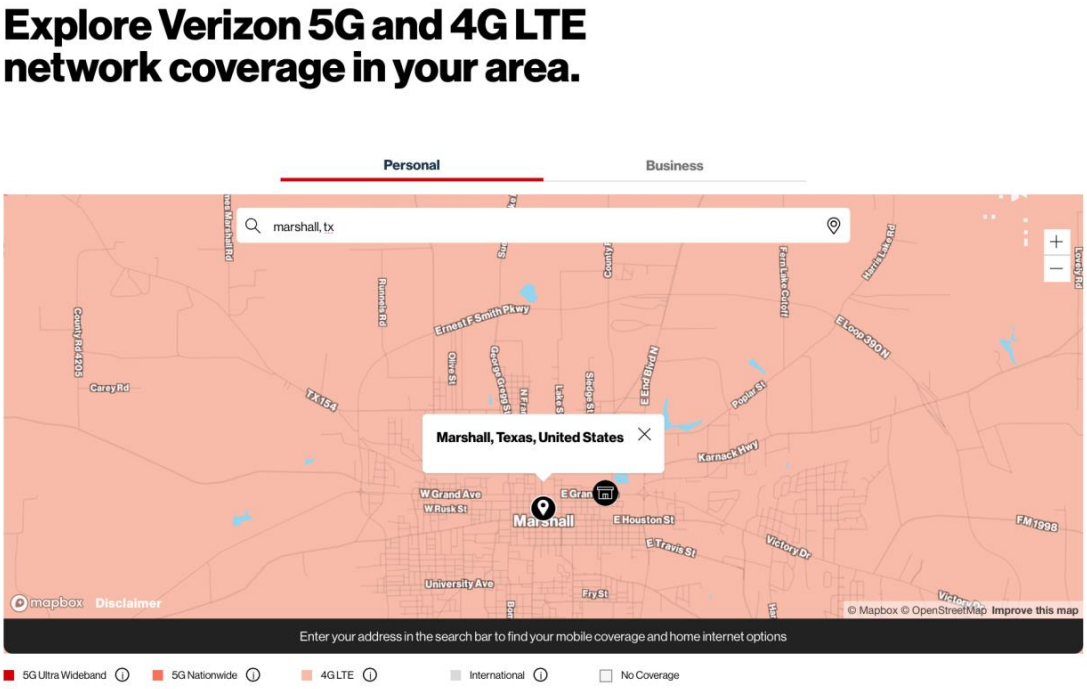
48. This Court has original subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

49. This Court has personal jurisdiction over Verizon in this action because Verizon 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 Verizon would not offend traditional notions of fair play and substantial justice. Verizon, 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 Eastern District of Texas, regularly do business or solicit business, engage in other persistent courses of conduct, and/or derive substantial revenue from products and/or services provided to individuals in Texas, and commit acts of infringement of Headwater's patents in this District by, among other things, making, using, importing, offering to sell, and selling products and services that infringe the Asserted Patents, including without limitation the mobile electronic devices, including mobile phones and tablets, and the cellular networks, servers, and services accused of infringement in this complaint.

50. Verizon, directly and/or through subsidiaries or intermediaries, have purposefully and voluntarily placed one or more products and/or services in the stream of commerce that practice the Asserted Patents with the intention and expectation that they will be purchased and used by consumers in the Eastern District of Texas. These products and/or services have been and continue to be purchased and used in the Eastern District of Texas.

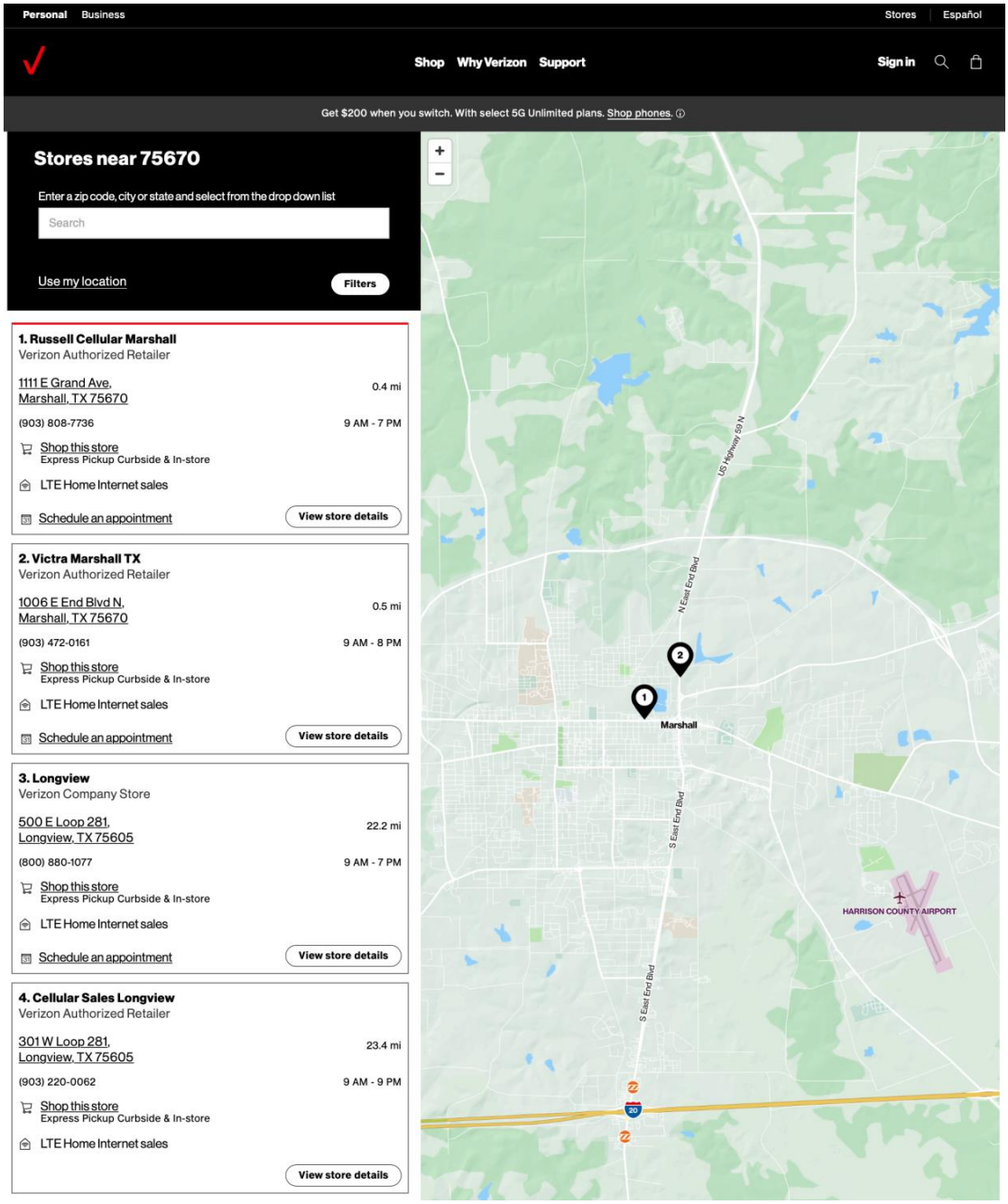
51. Venue as to Verizon is proper in this District under 28 U.S.C. §§ 1391 and 1400(b). On information and belief, Verizon resides in this District and/or has committed acts of infringement and has a regular and established place of business in this District.

52. For example, Verizon advertises that its wireless networks are available in Texas, including within the Eastern District of Texas. *See e.g.*, https://www.verizon.com/coverage-map/:



53. Verizon had approximately 115 million wireless retail connections as of June 30, 2022. *See* https://www.verizon.com/about/sites/default/files/Verizon_Fact_Sheet.pdf.

54. Verizon sells mobile devices accused of infringement in Texas, including within the Eastern District of Texas. *See, e.g.*, https://www.verizon.com/stores/search-results/?lat=32.54691&long=-94.35011:



COUNT 1 – CLAIM FOR INFRINGEMENT OF THE ’541 PATENT

55. Headwater incorporates by reference each of the allegations in the foregoing

paragraphs as if fully set forth herein and further alleges as follows:

56. On November 19, 2013, the United States Patent and Trademark Office issued U.S. Patent No. 8,589,541, entitled "Device-assisted services for protecting network capacity." Exhibit 2.

57. Headwater is the owner of the '541 patent with full rights to pursue recovery of royalties for damages for infringement, including full rights to recover past and future damages.

58. The written description of the '541 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 patentably distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

59. Headwater and its predecessors in interest have satisfied the requirements of 35 U.S.C. § 287(a) with respect to the '541 patent, and Headwater is entitled to damages for Defendants' past infringement.

60. Defendants have directly infringed (literally and equivalently) and induced others to infringe the '541 patent by, without a license or permission from Headwater: making, using, selling, offering for sale, or importing products that infringe the claims of the '541 patent; and inducing others to infringe the claims of the '541 patent.

61. On information and belief, Defendants use, import, offer for sale, and sell certain infringing products in the United States. The Accused Instrumentalities are, for example, user electronic devices, including mobile phones, and tablets, as well as cellular networks, servers, and services.

62. For example, attached as Exhibit 6 is a chart setting forth a description of Defendants' infringement of claim 1 of the '541 patent.

63. Defendants have also knowingly and intentionally induced and contributed to infringement of the '541 patent in violation of 35 U.S.C. §§ 271(b) and 271(c). For example, Defendants have had knowledge or were willfully blind of the '541 patent and the infringing nature of the Accused Instrumentalities at least because the ItsOn software included a patent marking notice which listed the '541 patent and patents in the same family as the '541 patent. Similarly, Defendants have had knowledge or were willfully blind of the '541 patent and the infringing nature of the Accused Instrumentalities at least because of communications by and among ItsOn, Headwater, and Verizon discussing ItsOn's and Headwater's intellectual property, including pending patent applications (such as the application which led to the issuance of the '541 patent) and issued patents (including the '541 patent), during the product development, technological, and marketing team meetings in 2009-2013. Additionally, on information and belief, Verizon has cited this specification in at least one other Verizon patent, which issued after the '541 patent issued.

64. Despite this knowledge of the '541 patent, Defendants have continued to actively encourage and instruct its customers to use and integrate the Accused Instrumentalities in ways that directly infringe the '541 patent. Defendants have done so knowing and intending that their customers would commit these infringing acts. Defendants have also continued to make, use, offer for sale, sell, and/or import the Accused Instrumentalities, despite their knowledge of the '541 patent, thereby specifically intending for and inducing their customers to infringe the '541 patent through the customers' normal and customary use of the Accused Instrumentalities.

65. Defendants have infringed multiple claims of the '541 patent, including independent claim 1. By way of example only, the normal and customary use of the mobile phones

and tablets as well as cellular networks, servers, and services made, used, sold, offered for sale and/or imported by Defendants infringes an exemplary claim of the ’541 patent, as in the description set forth in Exhibit 6, which Headwater provides without the benefit of information about the Accused Instrumentalities obtained through discovery.

66. On information and belief, Defendants’ infringement has and continues to be willful. Defendants, without a good faith belief of invalidity or non-infringement, have known or have been willfully blind to the fact that making, using, offering to sell, or selling the Accused Instrumentalities to their customers, infringes the ’541 patent.

67. Defendants have induced, and continue to induce, infringement of the ’541 patent by actively encouraging others (including its customers) to use, offer to sell, sell, and import 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 its customers; providing the Accused Instrumentalities to customers; and indemnifying patent infringement within the United States.

68. Headwater has been damaged by Defendants’ willful infringement of the ’541 patent and is entitled to damages as provided for in 35 U.S.C. § 284, including reasonable royalty damages.

COUNT 2 – CLAIM FOR INFRINGEMENT OF THE ’543 PATENT

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

70. On December 30, 2014, the United States Patent and Trademark Office issued U.S. Patent No. 8,924,543, entitled “Service design center for device assisted services.” Exhibit 3.

71. Headwater is the owner of the ’543 patent with full rights to pursue recovery of royalties for damages for infringement, including full rights to recover past and future damages.

72. The written description of the ’543 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 patentably distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

73. Headwater and its predecessors in interest have satisfied the requirements of 35 U.S.C. § 287(a) with respect to the ’543 patent, and Headwater is entitled to damages for Defendants’ past infringement.

74. Defendants have directly infringed (literally and equivalently) and induced others to infringe the ’543 patent by, without a license or permission from Headwater: making, using, selling, offering for sale, or importing products that infringe the claims of the ’543 patent; and inducing others to infringe the claims of the ’543 patent.

75. On information and belief, Defendants use, import, offer for sale, and sell certain infringing products in the United States. The Accused Instrumentalities are, for example, user electronic devices, including mobile phones, and tablets, as well as cellular networks, servers, and services.

76. For example, attached as Exhibit 7 is a chart setting forth a description of Defendants’ infringement of claim 1 of the ’543 patent.

77. Defendants have also knowingly and intentionally induced and contributed to infringement of the ’543 patent in violation of 35 U.S.C. §§ 271(b) and 271(c). For example, Defendants have had knowledge or were willfully blind of the ’543 patent and the infringing nature

of the Accused Instrumentalities at least because the ItsOn software included a patent marking notice which listed the ’543 patent and patents in the same family as the ’543 patent. Similarly, Defendants have had knowledge or were willfully blind of the ’543 patent and the infringing nature of the Accused Instrumentalities at least because of communications by and among ItsOn, Headwater, and Verizon discussing ItsOn’s and Headwater’s intellectual property, including pending patent applications (such as the application which led to the issuance of the ’543 patent) during the product development, technological, and marketing team meetings in 2009-2013. Additionally, on information and belief, Verizon has cited this specification in at least one other Verizon patent, which issued after the ’543 patent was issued. And Verizon’s U.S. Patent No. 9,167,374, which issued in 2015, cites U.S. Patent Application Publication No. 2012/0089727 to Gregory G. Raleigh et al. which had previously issued as the asserted ’543 patent.

78. Despite this knowledge of the ’543 patent, Defendants have continued to actively encourage and instruct their customers to use and integrate the Accused Instrumentalities in ways that directly infringe the ’543 patent. Defendants have done so knowing and intending that their customers will commit these infringing acts. Defendants have also continued to make, use, offer for sale, sell, and/or import the Accused Instrumentalities, despite their knowledge of the ’543 patent, thereby specifically intending for and inducing their customers to infringe the ’543 patent through the customers’ normal and customary use of the Accused Instrumentalities.

79. Defendants have infringed multiple claims of the ’543 patent, including independent claim 1. By way of example only, the normal and customary use of the mobile phones and tablets as well as cellular networks, servers, and services made, used, sold, offered for sale and/or imported by Defendants infringes an exemplary claim of the ’543 patent, as in the description set forth in Exhibit 7, which Headwater provides without the benefit of information

about the Accused Instrumentalities obtained through discovery.

80. On information and belief, Defendants' infringement has and continues to be willful. Defendants, without a good faith belief of invalidity or non-infringement, have known or have been willfully blind to the fact that making, using, offering to sell, or selling the Accused Instrumentalities to their customers, infringes the '543 patent.

81. Defendants have induced, and continue to induce, infringement of the '543 patent by actively encouraging others (including their customers) to use, offer to sell, sell, and import 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; providing the Accused Instrumentalities to customers; and indemnifying patent infringement within the United States.

82. Headwater has been damaged by Defendants' willful infringement of the '543 patent and is entitled to damages as provided for in 35 U.S.C. § 284, including reasonable royalty damages.

COUNT 3 – CLAIM FOR INFRINGEMENT OF THE '042 PATENT

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

84. On November 24, 2015, the United States Patent and Trademark Office issued U.S. Patent No. 9,198,042, entitled "Security techniques for device assisted services." Exhibit 4.

85. Headwater is the owner of the '042 patent with full rights to pursue recovery of royalties for damages for infringement, including full rights to recover past and future damages.

86. The written description of the '042 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 patentably distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

87. Headwater and its predecessors in interest have satisfied the requirements of 35 U.S.C. § 287(a) with respect to the ’042 patent, and Headwater is entitled to damages for Defendants’ past infringement.

88. Defendants have directly infringed (literally and equivalently) and induced others to infringe the ’042 patent by, without a license or permission from Headwater: making, using, selling, offering for sale, or importing products that infringe the claims of the ’042 patent; and inducing others to infringe the claims of the ’042 patent.

89. On information and belief, Defendants use, import, offer for sale, and sell certain infringing products in the United States. The Accused Instrumentalities are, for example, user electronic devices, including mobile phones, and tablets, as well as cellular networks, servers, and services.

90. For example, attached as Exhibit 8 is a chart setting forth a description of Defendants’ infringement of claim 1 of the ’042 patent.

91. Defendants have also knowingly and intentionally induced and contributed to infringement of the ’042 patent in violation of 35 U.S.C. §§ 271(b) and 271(c). For example, Defendants have had knowledge or were willfully blind of the ’042 patent and the infringing nature of the Accused Instrumentalities at least because the ItsOn software included a patent marking notice which listed patents in the same family as the ’042 patent. Similarly, Defendants have had knowledge or were willfully blind of the ’042 patent and the infringing nature of the Accused Instrumentalities at least because of communications by and among ItsOn, Headwater, and

Verizon discussing ItsOn's and Headwater's intellectual property, including pending patent applications (such as the application which led to the issuance of the '042 patent) during the product development, technological, and marketing team meetings in 2009-2013. Additionally, on information and belief, Verizon has cited this specification in at least one other Verizon patent, which issued after the '042 patent was issued.

92. Despite this knowledge of the '042 patent, Defendants have continued to actively encourage and instruct their customers to use and integrate the Accused Instrumentalities in ways that directly infringe the '042 patent. Defendants have done so knowing and intending that their customers will commit these infringing acts. Defendants have also continued to make, use, offer for sale, sell, and/or import the Accused Instrumentalities, despite their knowledge of the '042 patent, thereby specifically intending for and inducing their customers to infringe the '042 patent through the customers' normal and customary use of the Accused Instrumentalities.

93. Defendants have infringed multiple claims of the '042 patent, including independent claim 1. By way of example only, the normal and customary use of the mobile phones and tablets as well as cellular networks, servers, and services made, used, sold, offered for sale and/or imported by Defendants infringes an exemplary claim of the '042 patent, as in the description set forth in Exhibit 8, which Headwater provides without the benefit of information about the Accused Instrumentalities obtained through discovery.

94. On information and belief, Defendants' infringement has and continues to be willful. Defendants, without a good faith belief of invalidity or non-infringement, have known or have been willfully blind to the fact that making, using, offering to sell, or selling the Accused Instrumentalities to their customers, infringes the '042 patent.

95. Defendants have induced, and continue to induce, infringement of the ’042 patent by actively encouraging others (including their customers) to use, offer to sell, sell, and import 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; providing the Accused Instrumentalities to customers; and indemnifying patent infringement within the United States.

96. Headwater has been damaged by Defendants’ willful infringement of the ’042 patent and is entitled to damages as provided for in 35 U.S.C. § 284, including reasonable royalty damages.

COUNT 4 – CLAIM FOR INFRINGEMENT OF THE ’613 PATENT

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

98. On December 15, 2015, the United States Patent and Trademark Office issued U.S. Patent No. 9,215,613, entitled “Wireless end-user device with differential traffic control policy list having limited user control.” Exhibit 5.

99. Headwater is the owner of the ’613 patent with full rights to pursue recovery of royalties for damages for infringement, including full rights to recover past and future damages.

100. The written description of the ’613 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 patentably distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

101. Headwater and its predecessors in interest have satisfied the requirements of 35 U.S.C. § 287(a) with respect to the ’613 patent, and Headwater is entitled to damages for Defendants’ past infringement.

102. Defendants have directly infringed (literally and equivalently) and induced others to infringe the ’613 patent by, without a license or permission from Headwater: making, using, selling, offering for sale, or importing products that infringe the claims of the ’613 patent; and inducing others to infringe the claims of the ’613 patent.

103. On information and belief, Defendants use, import, offer for sale, and sell certain infringing products in the United States. The Accused Instrumentalities are, for example, user electronic devices, including mobile phones, and tablets, as well as cellular networks, servers, and services.

104. For example, attached as Exhibit 9 is a chart setting forth a description of Defendants’ infringement of claim 1 of the ’613 patent.

105. Defendants have also knowingly and intentionally induced and contributed to infringement of the ’613 patent in violation of 35 U.S.C. §§ 271(b) and 271(c). For example, Defendants have had knowledge or were willfully blind of the ’613 patent and the infringing nature of the Accused Instrumentalities at least because the ItsOn software included a patent marking notice which listed patents in the same family as the ’613 patent. Similarly, Defendants have had knowledge or were willfully blind of the ’613 patent and the infringing nature of the Accused Instrumentalities at least because of communications by and among ItsOn, Headwater, and Verizon discussing ItsOn’s and Headwater’s intellectual property, including pending patent applications (such as the application which led to the issuance of the ’613 patent) during the product development, technological, and marketing team meetings in 2009-2013. Additionally, on

information and belief, Verizon has cited this specification in at least one other Verizon patent, which issued after the ’613 patent issued.

106. Despite this knowledge of the ’613 patent, Defendants have continued to actively encourage and instruct its customers to use and integrate the Accused Instrumentalities in ways that directly infringe the ’613 patent. Defendants have done so knowing and intending that their customers would commit these infringing acts. Defendants have also continued to make, use, offer for sale, sell, and/or import the Accused Instrumentalities, despite their knowledge of the ’613 patent, thereby specifically intending for and inducing their customers to infringe the ’613 patent through the customers’ normal and customary use of the Accused Instrumentalities.

107. Defendants have infringed multiple claims of the ’613 patent, including independent claim 1. By way of example only, the normal and customary use of the mobile phones and tablets as well as cellular networks, servers, and services made, used, sold, offered for sale and/or imported by Defendants infringes an exemplary claim of the ’613 patent, as in the description set forth in Exhibit 9, which Headwater provides without the benefit of information about the Accused Instrumentalities obtained through discovery.

108. On information and belief, Defendants’ infringement has and continues to be willful. Defendants, without a good faith belief of invalidity or non-infringement, have known or have been willfully blind to the fact that making, using, offering to sell, or selling the Accused Instrumentalities to their customers, infringes the ’613 patent.

109. Defendants have induced, and continue to induce, infringement of the ’613 patent by actively encouraging others (including its customers) to use, offer to sell, sell, and import 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 its customers; providing the Accused Instrumentalities to customers; and indemnifying patent infringement within the United States.

110. Headwater has been damaged by Defendants' willful infringement of the '613 patent and is entitled to damages as provided for in 35 U.S.C. § 284, including reasonable royalty damages.

JURY DEMAND

111. 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 Defendants have infringed the Asserted Patents, and that the Asserted Patents are valid and enforceable;

B. A judgment and order requiring Defendants to pay Headwater past and future damages arising out of Defendants' infringement of the Asserted Patents in an amount no less than a reasonable royalty, costs, expenses, and pre- and post-judgment interest for its infringement of the asserted patents, as provided under 35 U.S.C. § 284;

C. A permanent injunction prohibiting Defendants from further acts of infringement of the Asserted Patents;

D. A judgment and order requiring Defendants to provide an accounting and to pay supplemental damages to Headwater, including, without limitation, pre-judgment and post-judgment interest;

E. A judgement that Defendants' infringement is willful and enhanced damages and fees as a result of that willfulness under 35 U.S.C. § 284;

F. A finding that this case is exceptional under 35 U.S.C. § 285, and an award of Headwater' reasonable attorney's fees and costs; and

G. Any and all other relief to which Headwater may be entitled.

Dated: July 28, 2023

Respectfully submitted,

/s/ Marc Fenster

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