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

ASUS TECHNOLOGY LICENSING INC. AND CELERITY IP, LLC, Plaintiffs, v. **CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS,** Defendant.	Civil Action No. 2:23-cv-488 **JURY TRIAL DEMANDED**

FIRST AMENDED COMPLAINT

Plaintiffs ASUS Technology Licensing Inc. ("ATL") and Celerity IP, LLC ("Celerity") (collectively, "Plaintiffs") hereby submit this First Amended Complaint for patent infringement against Defendant Cellco Partnership D/B/A Verizon Wireless "Verizon" or "Defendant") and states as follows:

NATURE OF THE ACTION

1. Verizon has infringed and continues to infringe, contribute to the infringement of, and/or actively induce others to infringe, U.S. Patent Nos. 10,951,359 ("the '359 Patent"), 10,148,402 ("the '402 Patent"), 10,798,754 ("the '754 Patent"), and 10,887,868 ("the '868 Patent") (collectively, the "Patents-In-Suit") (attached hereto as Exhibits A-D). Plaintiffs thus file this First Amended Complaint seeking a judgment of and relief for patent infringement by Verizon.

THE PARTIES

2. Plaintiff ASUS Technology Licensing Inc. ("ATL") is Taiwanese corporation, with its principal place of business located at No. 115, Li-De Rd., Beitou District, Taipei, Taiwan,

R.O.C. ATL was established in April 2022 by ASUSTeK Computer Inc. ("ASUSTeK") to continue ASUSTeK's long history of development in and contributions to the field of wireless communication technologies since 2000. ATL's mission includes active development of 3G, 4G, and 5G wireless communication technologies, as well as management of an innovative patent portfolio concerning such technologies which has brought abounding contributions to the industry through standards contributions and licensing. ATL is the owner by assignment of patents, originally owned by ASUSTeK, that are critically important to 3G, 4G, and 5G technologies. Regarding the present litigation, ATL is the owner by assignment of the Patents-In-Suit.

3. Plaintiff Celerity IP, LLC ("Celerity") is a limited liability company organized and existing under the laws of Texas, with its principal place of business located at 7160 Dallas Parkway, Suite 235, Plano, Texas 75024. Celerity has partnered with ATL to assist with the licensing and enforcement of ATL's patents, including in the present litigation. Celerity is the exclusive licensee of the Patents-In-Suit. While Celerity is the exclusive licensee of the Patents-In-Suit, patent owner ATL has agreed to join as a Plaintiff in the present litigation, including to ensure compliance with 35 U.S.C. § 281. *See Lone Star Silicon Innovations LLC v. Nanya Technology Corp.*, 925 F.3d 1225 (Fed. Cir. 2019).

4. Defendant Cellco Partnership d/b/a Verizon Wireless ("Verizon Wireless") is a partnership organized and existing under the laws of Delaware. Verizon Wireless is identified by the Texas Secretary of State as having an "ACTIVE" right to transact business in Texas under Texas taxpayer number 12233728893. Verizon Wireless may be served through its registered agent for service, The Corporation Trust Company, located at 1209 Orange Street, Wilmington, Delaware 19801.

JURISDICTION AND VENUE

5. This Court has subject matter jurisdiction pursuant to 28 U.S.C. § 1331 and 1338, as this action arises under the patent laws of the United States (35 U.S.C. §§ 1 *et seq.*).

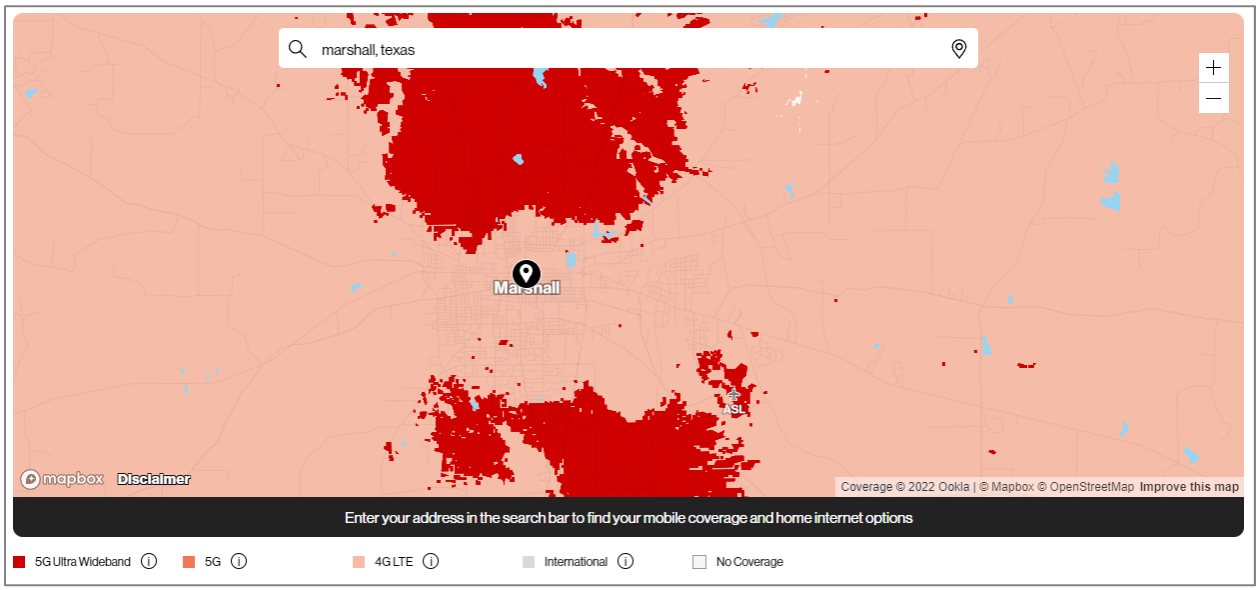
6. Verizon is subject to this Court's personal jurisdiction consistent with the principles of due process and/or the Texas Long Arm Statute.

7. Personal jurisdiction exists generally over the Defendant because Verizon has sufficient minimum contacts and/or has engaged in continuous and systematic activities in the forum as a result of business conducted within Texas, including in the Eastern District of Texas. Personal jurisdiction also exists over the Defendant because Verizon, directly or through subsidiaries, makes, uses, sells, offers for sale, imports, advertises, makes available, and/or markets products and/or services within Texas, including in the Eastern District of Texas, that infringe one or more claims of the Patents-in-Suit. Further, on information and belief, Verizon has placed or contributed to placing infringing products and/or services into the stream of commerce knowing or understanding that such products and/or services would be sold and used in the United States, including in this District. Verizon is registered or authorized to do business in Texas and maintains an agent authorized to receive service of process within Texas.

8. Venue is proper in the Eastern District of Texas pursuant to 28 U.S.C. §§ 1391(b)-(c) and/or 1400(b), including but not limited to because Verizon has committed acts of infringement in this District and has a regular and established place of business in this District. By way of example and without limitation, Verizon makes, uses, sells, offers to sell, and/or imports products and/or services that are accused of infringing the Patents-In-Suit into and/or within this District and maintains a permanent and/or continuing presence within this District.

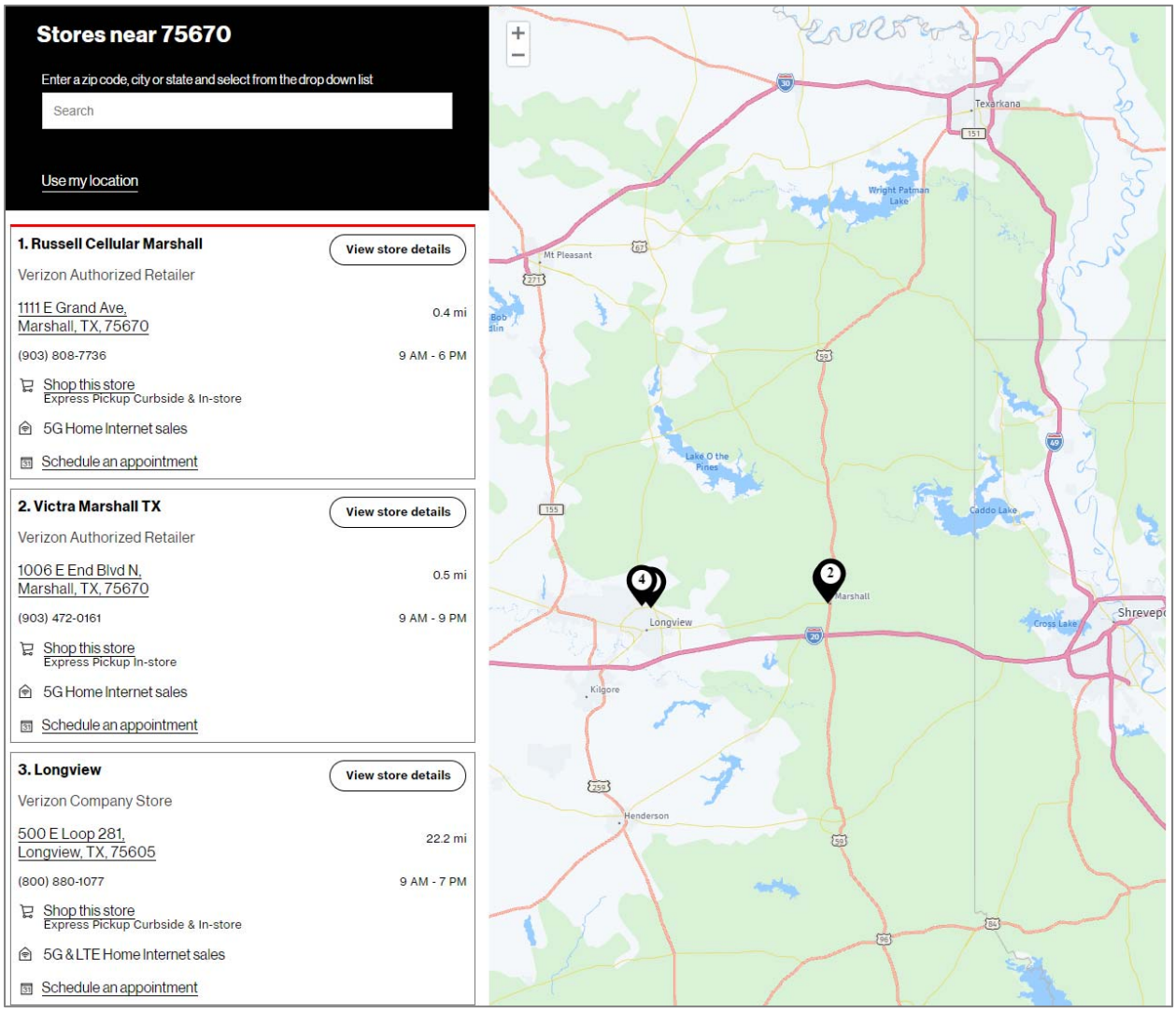
9. For example, Verizon operates one or more wireless telecommunications networks, including but not limited to wireless networks doing business under the brand names "Verizon" and "TracFone Wireless" (collectively, the "Verizon Wireless Networks"). The Verizon Wireless Networks include network infrastructure and provide wireless coverage throughout the United States, including within the Eastern District of Texas.

10. Verizon also advertises in the Eastern District of Texas, including but not limited to advertising the geographic coverage of the Verizon Wireless Networks within this District. By way of example and without limitation, Verizon's website provides a "Wireless coverage map" that advertises Verizon's current 4G and 5G wireless coverage in and around Marshall, Texas.



See, e.g., https://www.verizon.com/coverage-map/ (last visited October 18, 2023).

11. Verizon also operates numerous brick and mortar retail stores in the Eastern District of Texas. These retail stores are physically located within this District, are regular and established places of business of Verizon, and are used by Verizon to actively market and sell services for the Verizon Wireless Networks that infringe the Patents-In-Suit. By way of example and without limitation, Verizon's website provides an "Find a Verizon store" feature that shows the locations of such Verizon retail stores within this District.



See, e.g., https://www.verizon.com/stores/ (last visited October 18, 2023).

12. By way of example and without limitation, Verizon maintains brick and mortar retail stores in this District located, among other places, in Marshall (e.g., 1111 E Grand Ave., Marshall, TX 75670; and 1006 East End Boulevard N., Suite A, Marshall, Texas 75670), Longview (e.g., 500 E Loop 281, Longview, TX 75605; 301 W Loop 281, Longview, TX 75605; and 2414 Gilmer Rd, Longview, TX 75604), Tyler (e.g., 1016 W Southwest Loop 323, Tyler, TX 75701; 8988 S Broadway Ave, Tyler, TX 75703; 3816 Hwy 64 W, Tyler, TX 74704; 3101 Shiloh Rd, Tyler, TX 75707; and 6874 S Broadway Ave, Tyler, TX 75703), Beaumont (e.g., 4125 Dowlen Rd, Beaumont, TX 77706; and 860 Interstate 10 S, Beaumont, TX 77707), Lufkin (e.g., 2002 S. First Street, Lufkin, TX 75901), Sherman (e.g., 3133 N USX Hwy 75, Sherman, TX 75090),

Texarkana (e.g., 3902 Saint Michael Dr, Texarkana, TX 75503; and 404 Walton, Texarkana, TX 75501), Plano (e.g., 741 N Central Expy, Plano, TX 75075), McKinney (e.g., 2035 N Central Expy, Mckinney, TX 75070; and 3610 W University Dr, Mckinney, TX 75071), and Frisco (e.g., 2330 Preston Road, Suite 500, Frisco, TX 75034; 5725 Eldorado Pkwy, Frisco, TX 75033; 8049 Preston Rd, Frisco, TX 75034; and 1275 US Highway 380, Frisco, TX 75033). *See, e.g.*, https://www.verizon.com/stores/ (last visited October 18, 2023).

13. Verizon has numerous employees who work in Texas, including within the Eastern District of Texas. In addition to its many retail stores in Texas and in this District, Verizon also has corporate offices in Irving, Texas and Houston, Texas.

14. Verizon has solicited business in the Eastern District of Texas, has transacted business within this District, and has attempted to drive financial benefit from the residents of this District, including benefits directly related to Verizon's infringement of the Patents-In-Suit.

15. In other recent actions, Verizon has either admitted or not contested that the Eastern District of Texas is a proper venue for patent infringement actions against it. *See, e.g.*, Verizon's Answer and Counterclaims (Dkt. No. 20), *Cobblestone Wireless, LLC v. T-Mobile USA, Inc., T-Mobile US Inc.*, Case No. 2:22-cv-00477-JRG-RSP (Lead Case), *Cobblestone Wireless, LLC v. Cellco Partnership d/b/a Verizon Wireless*, Case No. 2:22- cv-00478-JRG-RSP (Member Case).

THE PATENTS-IN-SUIT

16. U.S. Patent No. 10,951,359 ("the '359 Patent") was duly and legally issued on March 16, 2021, for an invention titled, "Method and Apparatus For Providing Control Resource Set Configuration In A Wireless Communication System."

17. U.S. Patent No. 10,148,402 ("the '402 Patent") was duly and legally issued on December 4, 2018, for an invention titled, "Method and Apparatus For Beam Management In A Wireless Communication System."

18. U.S. Patent No. 10,798,754 ("the '754 Patent") was duly and legally issued on October 6, 2020, for an invention titled, "Method and Apparatus For Serving Quality of Service (QoS) Flow In A Wireless Communications System."

19. U.S. Patent No. 10,887,868 ("the '868 Patent") was duly and legally issued on January 5, 2021, for an invention titled, "Method and Apparatus For Transmission or Reception Using Beamforming In A Wireless Communication System."

20. Plaintiffs own all rights to the Patents-In-Suit that are necessary to bring this action, including all rights to sue for infringement and to recover past and future damages. Celerity is the exclusive licensee of the Patents-In-Suit, and ATL is the owner by assignment of the Patents-In-Suit. Patent owner ATL has voluntarily joined as a Plaintiff in this litigation.

21. Verizon is not currently licensed to practice the Patents-In-Suit.

22. The Patents-In-Suit are valid and enforceable.

23. Verizon has had knowledge and notice of the Patents-In-Suit, and its infringement thereof, at least since as early as February 1, 2023.

PLAINTIFFS' COMPLIANCE WITH THE ETSI IPR POLICY AND DEFENDANT'S FAILURE TO COMPLY

24. The European Telecommunications Standards Institute ("ETSI") is an independent, non-profit standard setting organization ("SSO") that produces globally-accepted standards in the telecommunications industry. In addition to its own activities, ETSI is also one of several SSOs that are organization partners of the Third Generation Partnership Project ("3GPP"), which maintains and develops globally applicable technical specifications, including for 3G, 4G, and 5G wireless communication technologies. ETSI and its members have developed global standards that ensure worldwide interoperability between wireless networks, network operators, and devices.

25. ETSI has developed and promulgated an IPR Policy, which is intended to strike a balance between the need for open standards on the one hand, and the rights of IPR owners on the other hand. Clause 15.6 of the ETSI IPR Policy defines the term "ESSENTIAL" to mean that

"it is not possible on technical (but not commercial) grounds, taking into account normal technical practice and the state of the art generally available at the time of standardization, to make, sell, lease, otherwise dispose of, repair, use or operate EQUIPMENT or METHODS which comply with a STANDARD without infringing that IPR." ETSI IPR Policy § 15.6 (Nov. 30, 2022).

26. In an abundance of caution and to ensure their compliance with ETSI's IPR Policy, the Plaintiffs informed Verizon that they were prepared to grant Verizon an irrevocable license to the Plaintiffs' patents that relate to 3G, 4G, and/or 5G wireless technologies, including to the Patents-In-Suit, on license terms that are Fair, Reasonable, and Non-Discriminatory ("FRAND"). The ETSI IPR Policy entitles a FRAND license to implementers that "MANUFACTURE …, sell, lease, or otherwise dispose of, … repair, use, or operate EQUIPMENT," and/or "use METHODS":

> **6 Availability of Licences**
>
> 6.1 When an ESSENTIAL IPR relating to a particular STANDARD or TECHNICAL SPECIFICATION is brought to the attention of ETSI, the Director-General of ETSI shall immediately request the owner to give within three months an irrevocable undertaking in writing that it is prepared to grant irrevocable licences on fair, reasonable and non-discriminatory ("FRAND") terms and conditions under such IPR to at least the following extent:
>
> - MANUFACTURE, including the right to make or have made customized components and sub-systems to the licensee's own design for use in MANUFACTURE;
> - sell, lease, or otherwise dispose of EQUIPMENT so MANUFACTURED;
> - repair, use, or operate EQUIPMENT; and
> - use METHODS.
>
> The above undertaking may be made subject to the condition that those who seek licences agree to reciprocate.

ETSI IPR Policy § 6.1 (Nov. 30, 2022).

27. Not later than August 25, 2022, the Plaintiffs sent Verizon correspondence initiating Plaintiff's good faith efforts to license their patents to Verizon on FRAND terms.

28. Over the following months, the Plaintiffs' representatives corresponded with Verizon representatives on several occasions. During such correspondence, the Plaintiffs' representatives provided, in good faith, materials concerning their patents and technical details evidencing the use of their patents, including the Patents-In-Suit. For example, not later than

February 1, 2023, the Plaintiffs' representatives provided Verizon credentials to access an online data room containing numerous example claim charts evidencing the use of Plaintiffs' patents. Claim charts evidencing Verizon's infringement of each of the Patents-In-Suit were provided to Verizon in the data room as early as February 1, 2023 and by no later than March 15, 2023.

29. The Plaintiffs' representatives have provided Verizon multiple opportunities to license the Plaintiffs' patents on FRAND terms.

30. To date, Verizon has not reciprocated the Plaintiffs' good faith efforts to negotiate a FRAND license. Verizon has failed to negotiate in good faith. Verizon has instead declined to take a license to the Plaintiffs' valuable intellectual property, including the Patents-In-Suit.

31. Verizon has operated and continues to operate the Verizon Wireless Networks without a license to the Plaintiffs' patents, including the Patents-In-Suit. Given Verizon's unwillingness to license the Plaintiffs' patents, or to cease its infringement, the Plaintiffs have filed this lawsuit for the purpose of protecting their patent rights in the United States.

32. The parties' licensing negotiations have been unsuccessful because Verizon has refused to engage in a good faith licensing discussion concerning the Plaintiffs' valuable patents.

GENERAL INFRINGEMENT ALLEGATIONS

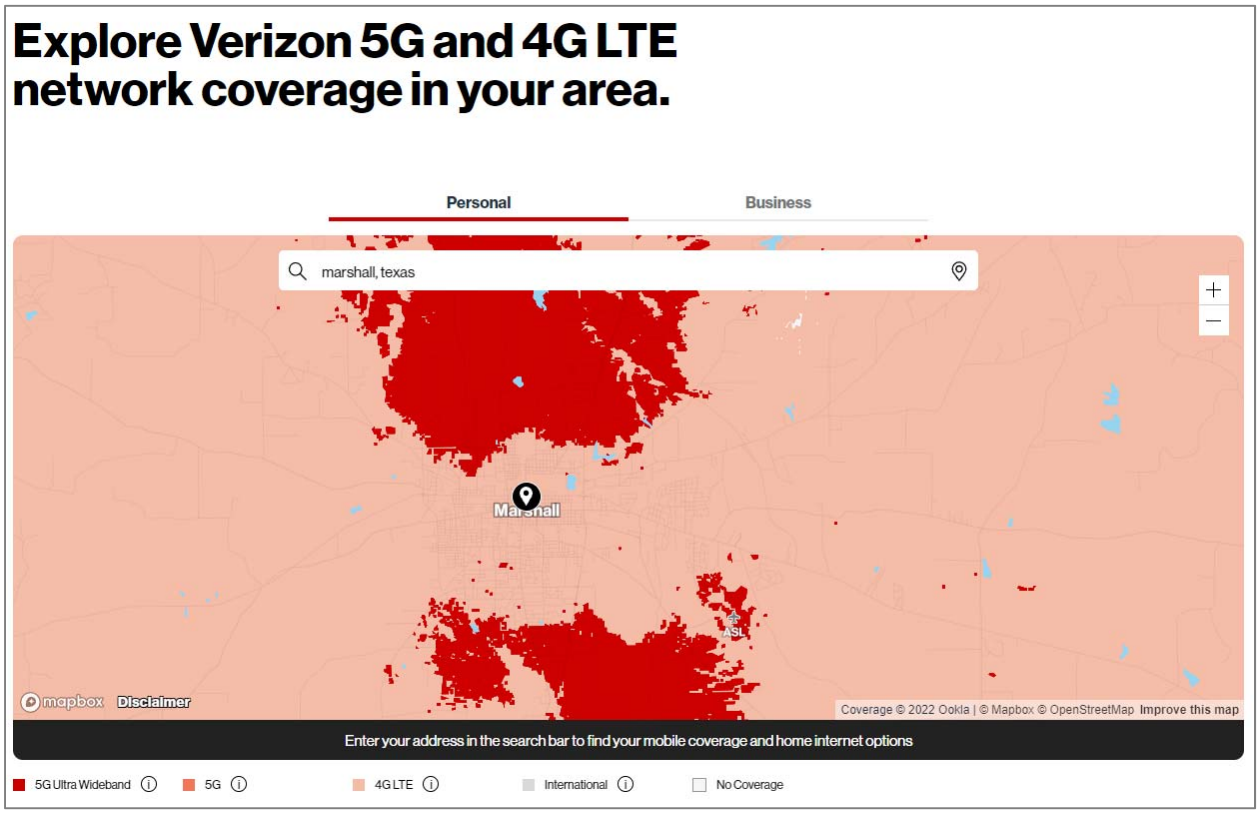
33. Verizon has imported/exported into/from the United States, manufactured, used, marketed, offered for sale, and/or sold in the United States, the Verizon Wireless Networks that infringe the Patents-In-Suit. For example, and as will be outlined further below, the Verizon Wireless Networks infringe the Patents-In-Suit in providing wireless services.

34. Verizon introduced 4G technology (also sometimes referred to as "LTE" or "4G LTE") to the Verizon Wireless Networks more than decade ago, launching in "38 major metropolitan areas and in more than 60 commercial airports coast to coast" as early as 2010. https://www.verizon.com/about/news/vzw/2010/12/pr2010-11-30a (last visited October 18, 2023) (initial launch including, among other locations, the Dallas-Ft. Worth Metroplex). By October

2012, Verizon announced that its 4G LTE service would be available to "more than 245 million people throughout the US" in "417 markets across the United States." https://www.verizon.com/about/news/press-releases/verizon-wireless-launches-400th-4g-lte-market-oct-18-two-months-ahead-schedule (last visited October 18, 2023). As of the filing of this Complaint, 4G coverage remains active in the Verizon Wireless Networks. *See, e.g.*, https://www.verizon.com/coverage-map/ (last visited October 18, 2023).

35. Verizon began adding 5G technology to the Verizon Wireless Networks at least by 2019, rolling out 5G wireless coverage to various cities throughout 2019, including in the Dallas metropolitan area starting by at least October 25, 2019. *See* https://www.verizon.com/about/our-company/5g/when-was-5g-introduced (last visited October 18, 2023). Verizon continued to grow its 5G coverage across the Verizon Wireless Networks, such that as of December 2022, Verizon advertised that its "5G Ultra Wideband" network coverage was "now available to more than 175 million people" across the US. https://www.verizon.com/about/news/verizon-continues-deploy-5g-ultra-wideband-faster (last visited October 18, 2023). Shortly before the filing of this Complaint, on June 21, 2023, Verizon highlighted its 5G Ultra Wideband coverage across Texas. *See* https://www.verizon.com/about/news/verizon-lights-5g-ultra-wideband-across-texas (last visited October 18, 2023) (highlighting coverage throughout the Eastern District of Texas, including, for example, in Sherman, Bells, Collinsvile, Denison, Annona, and Jacksonville).

36. As of the filing of this Complaint, the Verizon Wireless Networks continue to actively employ both 4G and 5G technologies throughout the United States, including in the Eastern District of Texas. In many geographic locations, the Verizon Wireless Networks employ both 4G and 5G technologies concurrently, allowing end-user devices to utilize the best connection that the device is capable of supporting. Verizon's website provides a map showing the geographic coverage for 4G and 5G within the Verizon Wireless Networks:



See, e.g., https://www.verizon.com/coverage-map/ (last visited October 18, 2023).

37. The Verizon Wireless Networks employ what Verizon refers to as both "5G" and "5G Ultra Wideband" variants of 5G. As Verizon has explained: "Verizon offers two types of 5G service: 5G Ultra Wideband and 5G Nationwide. 5G Ultra Wideband is Verizon's fastest 5G. Compared to typical 4G speeds, it runs up to 10x as fast, and responds quicker. Coverage is now expanding to more parts of the country (see map above). 5G Nationwide runs alongside 4G LTE, and delivers a similar experience to Verizon's 4G LTE network to provide a widely available 5G network that offers convenience and reliability." https://www.verizon.com/coverage-map/ (last visited October 18, 2023). As used in this Complaint, the term "5G" is intended to encompass all variants of 5G used by the Verizon Wireless Networks.

38. Verizon has frequently touted the benefits of 4G and 5G technologies in the Verizon Wireless Networks. For example, as Verizon presently states on its website: "5G can provide a faster, more responsive, and overall better experience." https://www.verizon.com/coverage-map/ (last visited October 18, 2023). Verizon asserts that "5G can provide high speeds, low latency and

massive capacity, offering the potential to change what you experience with your mobile device, and much more" and that "5G should help revolutionize industries and can provide immediate impact for customers. 5G could help make businesses more efficient and give consumers access to more information faster than ever before. It can help enable connected cars and lead to new fan experiences at stadiums. It could allow for new student experiences to invigorate education and support artificial intelligence (AI) in public safety. And it can enable advanced gaming and esports experiences." https://www.verizon.com/about/our-company/5g/what-5g (last visited October 18, 2023). Verizon has likewise in the past advertised the benefits of 4G in the Verizon Wireless Networks, including in particular during periods when that was the leading technology at the time.

39. Verizon has directly and indirectly infringed, and continues to directly and indirectly infringe, each of the Patents-In-Suit by engaging in acts constituting infringement under 35 U.S.C. § 271(a), (b), (c), and/or (f), including but not limited to making, using, selling and offering to sell, in this District and elsewhere in the United States, and importing into and exporting from the United States, products and/or services that infringe the Patents-In-Suit.

40. Verizon has directly infringed and continues to directly infringe the Patents-In-Suit, as provided in 35 U.S.C. § 271(a), including at least by Verizon making, using, selling, offering to sell, and/or importing the Verizon Wireless Networks and/or wireless network services. For example, and as will be outlined further below, the Verizon Wireless Networks infringe the Patents-In-Suit in providing wireless services.

41. Verizon has also indirectly infringed and continues to indirectly infringe the Patents-In-Suit, as provided in 35 U.S.C. § 271(b), including at least by inducing infringement by others, such as Verizon's customers and end-users, in this District and elsewhere in the United States, to use the Verizon Wireless Networks in manners that infringe the Patents-In-Suit. For example, Verizon's customers and end-users directly infringe via their use of the Verizon Wireless Networks, infringing the Patents-In-Suit. Verizon induces such direct infringement through its

affirmative acts of making, using, selling, offering to sell, and/or importing the Verizon Wireless Networks, as well as by advertising its wireless network technologies and providing instructions, documentation, and other information to its customers and end-users to encourage and teach them how to use the infringing wireless network technologies, including but not limited to by Verizon providing in-store and online technical support, marketing materials, product manuals, advertisements, and other product documentation. Verizon performs these affirmative acts with knowledge of the Patents-In-Suit and with the intent, or willful blindness, that the induced acts directly infringe the Patents-In-Suit.

42. Verizon has also indirectly infringed and continues to indirectly infringe the Patents-In-Suit, as provided by 35 U.S.C. § 271(c), by contributing to direct infringement committed by others, such as Verizon's customers and end-users, in this District and elsewhere in the United States. Verizon's affirmative acts of selling and offering to sell wireless services in this District and elsewhere in the United States, and causing the Verizon Wireless Networks to be manufactured, used, sold, and offered for sale, contribute to Verizon's customers and end-users use of the Verizon Wireless Networks, such that the Patents-In-Suit are directly infringed. The accused components in the Verizon Wireless Networks are material to the inventions claimed in the Patents-In-Suit, are not staple articles or commodities of commerce, have no substantial non-infringing uses, and are known by Verizon to be especially made or adapted for use in the infringement of the Patents-In-Suit. Verizon performs these affirmative acts with knowledge of the Patents-In-Suit and with the intent, or willful blindness, that they cause direct infringement of the Patents-In-Suit.

43. Verizon has also infringed and continues to infringe the Patents-In-Suit, as provided by 35 U.S.C. § 271(f)(1), by supplying or causing to be supplied in or from the United States all or a substantial portion of the components of the Verizon Wireless Networks, uncombined in whole or in part, in such a manner as to actively induce their combination outside the United States

in a manner that would infringe the Patents-In-Suit if such combination occurred within the United States. Verizon has likewise infringed and continues to infringe the Patents-In-Suit, as provided by 35 U.S.C. § 271(f)(2), by supplying or causing to be supplied in or from the United States components of the Verizon Wireless Networks that are especially made or especially adapted for infringement of the Patents-In-Suit. The accused components in the Verizon Wireless Networks are material to the inventions claimed in the Patents-In-Suit, are not staple articles or commodities of commerce, have no substantial non-infringing uses, and are known by Verizon to be especially made or adapted for use in the infringement of the Patents-In-Suit. Verizon performs these affirmative acts with knowledge of the Patents-In-Suit and with the intent, or willful blindness, that they cause direct infringement of the Patents-In-Suit.

44. Verizon's infringement of the Patents-In-Suit has caused damage to the Plaintiffs. The Plaintiffs are entitled to recover from Verizon the damages sustained by the Plaintiffs as a result of Verizon's wrongful acts in an amount subject to proof at trial.

45. Verizon's infringement of the Patents-In-Suit has been and continues to be willful. Verizon has had knowledge and notice of the Patents-In-Suit, and its infringement thereof, at least since as early as February 1, 2023. Despite this, Verizon continues without license to make, use, sell, offer to sell, and/or import products and/or services that infringe the Patents-In-Suit, including the Verizon Wireless Networks, thereby willfully continuing Verizon's infringement.

46. In the interest of providing detailed averments of infringement, the Plaintiffs below demonstrate infringement for at least one claim in each of the Patents-In-Suit. However, the exemplary claims and exemplary mappings provided herein should not be considered limiting, and additional claims and mappings will be disclosed per the Court's rules relating to infringement contentions.

COUNT I: INFRINGEMENT OF THE '359 PATENT

47. Plaintiffs incorporate by reference the preceding paragraphs as though fully set forth herein.

48. U.S. Patent No. 10,951,359 ("the '359 Patent") was duly and legally issued on March 16, 2021, for an invention titled, "Method and Apparatus For Providing Control Resource Set Configuration In A Wireless Communication System."

49. Plaintiffs own all rights to the '359 Patent that are necessary to bring this action.

50. Verizon is not currently licensed to practice the '359 Patent.

51. Verizon infringes, contributes to the infringement of, and/or induces infringement of the '359 Patent by making, using, selling, offering for sale, exporting from, and/or importing into the United States the Verizon Wireless Networks and/or wireless network services.

52. For example, the Verizon Wireless Networks infringe at least claim 1 of the '359 Patent in providing 5G wireless services. For example, and to the extent the preamble is limiting, the Verizon Wireless Networks practice a method of a network node. For example, the Verizon Wireless Networks practice a method of a network node in providing 5G wireless services. On information and belief, this functionality requires the Verizon Wireless Networks in their entirely assembled form, as specifically provisioned and operated by Verizon.

53. The Verizon Wireless Networks further practice the step of transmitting a signal indicating at least a first duration and a bitmap. For example, in providing 5G wireless services, the Verizon Wireless Networks practice the step of transmitting a radio resource control ("RRC") reconfiguration message indicating at least a first duration of a control resource set ("CORESET") and a bitmap for monitoring symbols within a slot. On information and belief, this functionality requires the Verizon Wireless Networks in their entirely assembled form, as specifically provisioned and operated by Verizon.

54. The Verizon Wireless Networks further practice the foregoing method wherein the first duration is time duration of a control resource set (CORESET). For example, in providing 5G wireless services, the Verizon Wireless Networks practice the foregoing method wherein the duration is a time duration of the CORESET in number of symbols. On information and belief, this functionality requires the Verizon Wireless Networks in their entirely assembled form, as specifically provisioned and operated by Verizon.

55. The Verizon Wireless Networks further practice the foregoing method wherein the bit map includes a set of bit positions, where each bit position has a value of one or zero and each bit position with the value of one indicates a starting Orthogonal Frequency Division Multiplexing (OFDM) symbol of a monitoring occasion of the CORESET within a slot. For example, in providing 5G wireless services, the Verizon Wireless Networks practice the foregoing method wherein the bitmap for monitoring symbols within a slot includes a set of bit positions each with a value of one or zero, with the most significant bit representing the first OFDM symbol in a slot, the second most significant bit representing the second OFDM symbol, and so on, and where each bit set to one indicates a starting OFDM symbol of a monitoring occasion of the CORESET within the slot. On information and belief, this functionality requires the Verizon Wireless Networks in their entirely assembled form, as specifically provisioned and operated by Verizon.

56. The Verizon Wireless Networks further practice the step of not allowing to transmit the signal such that an interval between any two bit positions with the value of one in the set of bit positions in the bit map is smaller than the first duration. For example, in providing 5G wireless services, the Verizon Wireless Networks practice the step of not allowing transmission of a bitmap for monitoring symbols within a slot if the interval between any two bit positions with the value of one in the bitmap is smaller than the defined time duration of the CORESET in number of symbols. On information and belief, this functionality requires the Verizon Wireless Networks in their entirely assembled form, as specifically provisioned and operated by Verizon.

57. Accordingly, as illustrated above, the Verizon Wireless Networks directly infringe one or more claims of the '359 Patent. Verizon makes, uses, sells, offers for sale, exports, and/or imports, in this District and/or elsewhere in the United States, the Verizon Wireless Networks and/or wireless network services and thus directly infringes the '359 Patent.

58. Verizon has also indirectly infringed and continues to indirectly infringe the '359 Patent, as provided in 35 U.S.C. § 271(b), including at least by inducing infringement by others, such as Verizon's customers and end-users, in this District and elsewhere in the United States, to use the Verizon Wireless Networks in manners that infringe the '359 Patent. For example, Verizon's customers and end-users directly infringe via their use of the Verizon Wireless Networks to access and use 5G wireless network technologies, infringing the '359 Patent. Verizon induces such direct infringement through its affirmative acts of making, using, selling, offering to sell, and/or importing the Verizon Wireless Networks, as well as by advertising its infringing wireless network technologies and providing instructions, documentation, and other information to its customers and end-users to encourage and teach them how to use the infringing wireless network technologies, including but not limited to by Verizon providing in-store and online technical support, marketing materials, product manuals, advertisements, and other product documentation. Verizon performs these affirmative acts with knowledge of the '359 Patent and with the intent, or willful blindness, that the induced acts directly infringe the '359 Patent.

59. Verizon has also indirectly infringed and continues to indirectly infringe the '359 Patent, as provided by 35 U.S.C. § 271(c), by contributing to direct infringement committed by others, such as Verizon's customers and end-users, in this District and elsewhere in the United States. Verizon's affirmative acts of selling and offering to sell wireless services in this District and elsewhere in the United States, and causing the Verizon Wireless Networks to be manufactured, used, sold, and offered for sale, contribute to Verizon's customers and end-users use of the Verizon Wireless Networks, such that the '359 Patent is directly infringed. The accused

components in the Verizon Wireless Networks are material to the inventions claimed in the '359 Patent, are not staple articles or commodities of commerce, have no substantial non-infringing uses, and are known by Verizon to be especially made or adapted for use in the infringement of the '359 Patent. Verizon performs these acts with knowledge of the '359 Patent and with the intent, or willful blindness, that they cause direct infringement of the '359 Patent.

60. Verizon has also infringed and continues to infringe the '359 Patent, as provided by 35 U.S.C. § 271(f)(1), by supplying or causing to be supplied in or from the United States all or a substantial portion of the components of the Verizon Wireless Networks, uncombined in whole or in part, in such a manner as to actively induce their combination outside the United States in a manner that would infringe the '359 Patent if such combination occurred within the United States. Verizon has likewise infringed and continues to infringe the '359 Patent, as provided by 35 U.S.C. § 271(f)(2), by supplying or causing to be supplied in or from the United States components of the Verizon Wireless Networks that are especially made or especially adapted for infringement of the '359 Patent. The accused components in the Verizon Wireless Networks are material to the inventions claimed in the '359 Patent, are not staple articles or commodities of commerce, have no substantial non-infringing uses, and are known by Verizon to be especially made or adapted for use in the infringement of the Patents-In-Suit. Verizon performs these affirmative acts with knowledge of the '359 Patent and with the intent, or willful blindness, that they cause direct infringement of the '359 Patent.

61. Verizon's infringement of the '359 Patent has damaged and will continue to damage the Plaintiffs.

62. Verizon has had knowledge of the '359 Patent, and its infringement thereof, at least since as early as February 1, 2023. Verizon continues without license to make, use, sell, offer to sell, and/or import the Verizon Wireless Networks, willfully continuing Verizon's infringement.

COUNT II: INFRINGEMENT OF THE '402 PATENT

63. Plaintiffs incorporate by reference the preceding paragraphs as though fully set forth herein.

64. U.S. Patent No. 10,148,402 ("the '402 Patent") was duly and legally issued on December 4, 2018, for an invention titled, "Method and Apparatus For Beam Management In A Wireless Communication System."

65. Plaintiffs own all rights to the '402 Patent that are necessary to bring this action.

66. Verizon is not currently licensed to practice the '402 Patent.

67. Verizon infringes, contributes to the infringement of, and/or induces infringement of the '402 Patent by making, using, selling, offering for sale, exporting from, and/or importing into the United States the Verizon Wireless Networks and/or wireless network services.

68. For example and as shown below, the Verizon Wireless Networks infringe at least claim 1 of the '402 Patent in providing 5G wireless services. For example, and to the extent the preamble is limiting, the Verizon Wireless Networks practice a method of a base station. For example, in providing 5G wireless services, the Verizon Wireless Networks practice a method of a base station (e.g., a base station transmits DCI including a CSI Request to a UE). On information and belief, this functionality requires the Verizon Wireless Networks in their entirely assembled form, as specifically provisioned and operated by Verizon.

69. The Verizon Wireless Networks further practice the step whereby the base station transmits to a UE a control signal associated with a reference signal for beam measurement. For example, in providing 5G wireless services, the Verizon Wireless Networks practice the step whereby the base station transmits to a UE a control signal associated with a reference signal for beam measurement (e.g., a base station transmits DCI including a CSI Request to a UE). On information and belief, this functionality requires the Verizon Wireless Networks in their entirely assembled form, as specifically provisioned and operated by Verizon.

70. The Verizon Wireless Networks further practice the foregoing step wherein the control signal triggers aperiodical transmission of the reference signal for beam measurement. For example, in providing 5G wireless services, the Verizon Wireless Networks practice the foregoing step wherein the control signal triggers aperiodical transmission of the reference signal for beam measurement (e.g., via the aperiodicTriggerStateList). On information and belief, this functionality requires the Verizon Wireless Networks in their entirely assembled form, as specifically provisioned and operated by Verizon.

71. The Verizon Wireless Networks further practice the foregoing step wherein the control signal includes a beam-related information for transmitting the reference signal for beam measurement and indicates how many symbols are used to carry the reference signal for beam measurement. For example, in providing 5G wireless services, the Verizon Wireless Networks practice the foregoing step wherein the control signal includes a beam-related information for transmitting the reference signal for beam measurement (e.g., information in the CSI request field in the DCI, such as the qcl-info element) and indicates how many symbols are used to carry the reference signal for beam measurement (e.g., via the cdm-Type parameter). On information and belief, this functionality requires the Verizon Wireless Networks in their entirely assembled form, as specifically provisioned and operated by Verizon.

72. The Verizon Wireless Networks further practice the step whereby the base station transmits the reference signal for beam measurement to the UE. For example, in providing 5G wireless services, the Verizon Wireless Networks practice the step whereby the base station transmits the reference signal for beam measurement to the UE (e.g., based upon the configured cdm-Type parameter). On information and belief, this functionality requires the Verizon Wireless Networks in their entirely assembled form, as specifically provisioned and operated by Verizon.

73. Accordingly, as illustrated above, the Verizon Wireless Networks directly infringe one or more claims of the '402 Patent. Verizon makes, uses, sells, offers for sale, exports, and/or

imports, in this District and/or elsewhere in the United States, the Verizon Wireless Networks and/or wireless network services and thus directly infringes the '402 Patent.

74. Verizon has also indirectly infringed and continues to indirectly infringe the '402 Patent, as provided in 35 U.S.C. § 271(b), including at least by inducing infringement by others, such as Verizon's customers and end-users, in this District and elsewhere in the United States, to use the Verizon Wireless Networks in manners that infringe the '402 Patent. For example, Verizon's customers and end-users directly infringe via their use of the Verizon Wireless Networks to access and use 5G wireless network technologies, infringing the '402 Patent. Verizon induces such direct infringement through its affirmative acts of making, using, selling, offering to sell, and/or importing the Verizon Wireless Networks, as well as by advertising its infringing wireless network technologies and providing instructions, documentation, and other information to its customers and end-users to encourage and teach them how to use the infringing wireless network technologies, including but not limited to by Verizon providing in-store and online technical support, marketing materials, product manuals, advertisements, and other product documentation. Verizon performs these affirmative acts with knowledge of the '402 Patent and with the intent, or willful blindness, that the induced acts directly infringe the '402 Patent.

75. Verizon has also indirectly infringed and continues to indirectly infringe the '402 Patent, as provided by 35 U.S.C. § 271(c), by contributing to direct infringement committed by others, such as Verizon's customers and end-users, in this District and elsewhere in the United States. Verizon's affirmative acts of selling and offering to sell wireless services in this District and elsewhere in the United States, and causing the Verizon Wireless Networks to be manufactured, used, sold, and offered for sale, contribute to Verizon's customers and end-users use of the Verizon Wireless Networks, such that the '402 Patent is directly infringed. The accused components in the Verizon Wireless Networks are material to the inventions claimed in the '402 Patent, are not staple articles or commodities of commerce, have no substantial non-infringing

uses, and are known by Verizon to be especially made or adapted for use in the infringement of the '402 Patent. Verizon performs these acts with knowledge of the '402 Patent and with the intent, or willful blindness, that they cause direct infringement of the '402 Patent.

76. Verizon has also infringed and continues to infringe the '402 Patent, as provided by 35 U.S.C. § 271(f)(1), by supplying or causing to be supplied in or from the United States all or a substantial portion of the components of the Verizon Wireless Networks, uncombined in whole or in part, in such a manner as to actively induce their combination outside the United States in a manner that would infringe the '402 Patent if such combination occurred within the United States. Verizon has likewise infringed and continues to infringe the '402 Patent, as provided by 35 U.S.C. § 271(f)(2), by supplying or causing to be supplied in or from the United States components of the Verizon Wireless Networks that are especially made or especially adapted for infringement of the '402 Patent. The accused components in the Verizon Wireless Networks are material to the inventions claimed in the '402 Patent, are not staple articles or commodities of commerce, have no substantial non-infringing uses, and are known by Verizon to be especially made or adapted for use in the infringement of the Patents-In-Suit. Verizon performs these affirmative acts with knowledge of the '402 Patent and with the intent, or willful blindness, that they cause direct infringement of the '402 Patent.

77. Verizon's infringement of the '402 Patent has damaged and will continue to damage the Plaintiffs.

78. Verizon's infringement of the '402 Patent has been and continues to be willful. Verizon has had knowledge and notice of the '402 Patent, and its infringement thereof, at least since as early as February 1, 2023. Verizon continues without license to make, use, sell, offer to sell, and/or import the Verizon Wireless Networks, willfully continuing Verizon's infringement.

COUNT III: INFRINGEMENT OF THE '754 PATENT

79. Plaintiffs incorporate by reference the preceding paragraphs as though fully set forth herein.

80. U.S. Patent No. 10,798,754 ("the '754 Patent") was duly and legally issued on October 6, 2020, for an invention titled, "Method and Apparatus For Serving Quality of Service (QoS) Flow In A Wireless Communications System."

81. Plaintiffs own all rights to the '754 Patent that are necessary to bring this action.

82. Verizon is not currently licensed to practice the '754 Patent.

83. Verizon infringes, contributes to the infringement of, and/or induces infringement of the '754 patent by making, using, selling, offering for sale, exporting from, and/or importing into the United States the Verizon Wireless Networks and/or wireless network services.

84. For example and as shown below, the Verizon Wireless Networks infringe at least claim 1 of the '754 Patent in providing 5G wireless services. For example, and to the extent the preamble is limiting, the Verizon Wireless Networks practice a method of a network node. For example, in providing 5G wireless services, the Verizon Wireless Networks practice a method (e.g., a method of QoS management) of a network node (e.g., a 5G network node). On information and belief, this functionality requires the Verizon Wireless Networks in their entirely assembled form, as specifically provisioned and operated by Verizon.

85. The Verizon Wireless Networks further practice the step of transmitting a first RRC (Radio Resource Control) message with a DRB (Data Radio Bearer) configuration to a UE (User Equipment) for establishing a default DRB for a PDU (Protocol Data Unit) session. For example, in providing 5G wireless services, the Verizon Wireless Networks practice the step of transmitting a first RRC message (e.g., a RRC reconfiguration message) with a DRB configuration (e.g., a radio bearer configuration information element (IE)) to a UE for establishing a default DRB for a PDU session (e.g., the radio bearer configuration IE establishes a default DRB for the PDU session).

On information and belief, this functionality requires the Verizon Wireless Networks in their entirely assembled form, as specifically provisioned and operated by Verizon.

86. The Verizon Wireless Networks further practice the foregoing step wherein the DRB configuration includes a QFI (QoS Flow ID) configuration used to indicate whether a QFI field is present or not in uplink for the default DRB and the QFI configuration is always set to a value indicating the QFI field is present in uplink for the default DRB. For example, in providing 5G wireless services, the Verizon Wireless Networks practice the foregoing step wherein the DRB configuration (e.g., radio bearer configuration IE) includes a QFI configuration (e.g., an SDAP configuration IE) used to indicate whether a QFI field is present or not in uplink for the default DRB (e.g., the SDAP configuration IE indicates whether an uplink SDAP header with a QFI field is present or not) and the QFI configuration is always set to a value indicating the QFI field is present in uplink for the default DRB (e.g., the SDAP configuration IE always indicates that an uplink SDAP header with the QFI field is present for the default DRB). On information and belief, this functionality requires the Verizon Wireless Networks in their entirely assembled form, as specifically provisioned and operated by Verizon.

87. The Verizon Wireless Networks further practice the step of establishing the default DRB with a presence of the QFI field in uplink. For example, in providing 5G wireless services, the Verizon Wireless Networks practice the step of establishing the default DRB (e.g., the SDAP configuration IE establishes the default DRB) with a presence of the QFI field in uplink (e.g., the SDAP configuration IE also establishes the presence of an uplink SDAP header with the QFI field). On information and belief, this functionality requires the Verizon Wireless Networks in their entirely assembled form, as specifically provisioned and operated by Verizon.

88. The Verizon Wireless Networks further practice the step of receiving a SDAP (Service Data Adaptation Protocol) PDU with the QFI field via the default DRB from the UE. For example, in providing 5G wireless services, the Verizon Wireless Networks practice the step

of receiving a SDAP PDU with the QFI field (e.g., an SDAP PDU with an uplink SDAP header including the QFI field) via the default DRB from the UE (e.g., the SDAP PDU is received by the network node from the UE via the default DRB). On information and belief, this functionality requires the Verizon Wireless Networks in their entirely assembled form, as specifically provisioned and operated by Verizon.

89. Accordingly, as illustrated above, the Verizon Wireless Networks directly infringe one or more claims of the '754 Patent. Verizon makes, uses, sells, offers for sale, exports, and/or imports, in this District and/or elsewhere in the United States, the Verizon Wireless Networks and/or wireless network services and thus directly infringes the '754 Patent.

90. Verizon has also indirectly infringed and continues to indirectly infringe the '754 Patent, as provided in 35 U.S.C. § 271(b), including at least by inducing infringement by others, such as Verizon's customers and end-users, in this District and elsewhere in the United States, to use the Verizon Wireless Networks in manners that infringe the '754 Patent. For example, Verizon's customers and end-users directly infringe via their use of the Verizon Wireless Networks to access and use 5G wireless network technologies, infringing the '754 Patent. Verizon induces such direct infringement through its affirmative acts of making, using, selling, offering to sell, and/or importing the Verizon Wireless Networks, as well as by advertising its infringing wireless network technologies and providing instructions, documentation, and other information to its customers and end-users to encourage and teach them how to use the infringing wireless network technologies, including but not limited to by Verizon providing in-store and online technical support, marketing materials, product manuals, advertisements, and other product documentation. Verizon performs these affirmative acts with knowledge of the '754 Patent and with the intent, or willful blindness, that the induced acts directly infringe the '754 Patent.

91. Verizon has also indirectly infringed and continues to indirectly infringe the '754 Patent, as provided by 35 U.S.C. § 271(c), by contributing to direct infringement committed by

others, such as Verizon's customers and end-users, in this District and elsewhere in the United States. Verizon's affirmative acts of selling and offering to sell wireless services in this District and elsewhere in the United States, and causing the Verizon Wireless Networks to be manufactured, used, sold, and offered for sale, contribute to Verizon's customers and end-users use of the Verizon Wireless Networks, such that the '754 Patent is directly infringed. The accused components in the Verizon Wireless Networks are material to the inventions claimed in the '754 Patent, are not staple articles or commodities of commerce, have no substantial non-infringing uses, and are known by Verizon to be especially made or adapted for use in the infringement of the '754 Patent. Verizon performs these acts with knowledge of the '754 Patent and with the intent, or willful blindness, that they cause direct infringement of the '754 Patent.

92. Verizon has also infringed and continues to infringe the '754 Patent, as provided by 35 U.S.C. § 271(f)(1), by supplying or causing to be supplied in or from the United States all or a substantial portion of the components of the Verizon Wireless Networks, uncombined in whole or in part, in such a manner as to actively induce their combination outside the United States in a manner that would infringe the '754 Patent if such combination occurred within the United States. Verizon has likewise infringed and continues to infringe the '754 Patent, as provided by 35 U.S.C. § 271(f)(2), by supplying or causing to be supplied in or from the United States components of the Verizon Wireless Networks that are especially made or especially adapted for infringement of the '754 Patent. The accused components in the Verizon Wireless Networks are material to the inventions claimed in the '754 Patent, are not staple articles or commodities of commerce, have no substantial non-infringing uses, and are known by Verizon to be especially made or adapted for use in the infringement of the Patents-In-Suit. Verizon performs these affirmative acts with knowledge of the '754 Patent and with the intent, or willful blindness, that they cause direct infringement of the '754 Patent.

93. Verizon's infringement of the '754 Patent has damaged and will continue to damage the Plaintiffs.

94. Verizon's infringement of the '754 Patent has been and continues to be willful. Verizon has had knowledge and notice of the '754 Patent, and its infringement thereof, at least since as early as February 1, 2023. Verizon continues without license to make, use, sell, offer to sell, and/or import the Verizon Wireless Networks, willfully continuing Verizon's infringement.

COUNT IV: INFRINGEMENT OF THE '868 PATENT

95. Plaintiffs incorporate by reference the preceding paragraphs as though fully set forth herein.

96. U.S. Patent No. 10,887,868 ("the '868 Patent") was duly and legally issued on January 5, 2021, for an invention titled, "Method and Apparatus For Transmission or Reception Using Beamforming In A Wireless Communication System."

97. Plaintiffs own all rights to the '868 Patent that are necessary to bring this action.

98. Verizon is not currently licensed to practice the '868 Patent.

99. Verizon infringes, contributes to the infringement of, and/or induces infringement of the '868 patent by making, using, selling, offering for sale, exporting from, and/or importing into the United States the Verizon Wireless Networks and/or wireless network services.

100. For example and as shown below, the Verizon Wireless Networks infringe at least claim 5 of the '868 Patent in providing 5G wireless services. For example, and to the extent the preamble is limiting, the Verizon Wireless Networks practice a method of a network node for transmission or reception using beamforming. For example, in providing 5G wireless services, the Verizon Wireless Networks practice a method of a network node (e.g., a 5G network node) for transmission or reception using beamforming.

101. The Verizon Wireless Networks further practice the step of selecting a network beam. For example, in providing 5G wireless services, the Verizon Wireless Networks practice

the step of selecting a network beam (e.g., by sending a Radio Resource Configuration (RRC) message identifying the beam with a specified SSB-Index and csi-RS index). On information and belief, this functionality requires the Verizon Wireless Networks in their entirely assembled form, as specifically provisioned and operated by Verizon.

102. The Verizon Wireless Networks further practice the step of transmitting a first signal to a user equipment (UE) to indicate a first information associated with the network beam for the UE to derive, based on a beam reference signal of the network beam, a UE beam used to transmit a periodic Channel State Information (CSI) and to transmit a scheduling request. For example, in providing 5G wireless services, the Verizon Wireless Networks practice the step of transmitting a first signal (e.g., a Medium Access Control (MAC) signal) to a user equipment (UE) to indicate a first information associated with the network beam for the UE to derive (e.g., indicating the activation status of spatial relation information for a physical uplink control channel (PUCCH)), based on a beam reference signal of the network beam, a UE beam used to transmit a periodic Channel State Information (CSI) and to transmit a scheduling request (e.g., the indicated information is associated with the network beam, such as the beam corresponding to the ssb-Index and csi-RS-index discussed above). On information and belief, this functionality requires the Verizon Wireless Networks in their entirely assembled form, as specifically provisioned and operated by Verizon.

103. The Verizon Wireless Networks further practice the foregoing step wherein the first signal is a Medium Access Control (MAC) signaling. For example, as discussed above, the signal transmitted to a user equipment (UE) to indicate the first information is a Medium Access Control (MAC) signal (e.g., a MAC Control Element). On information and belief, this functionality requires the Verizon Wireless Networks in their entirely assembled form, as specifically provisioned and operated by Verizon.

104. The Verizon Wireless Networks further practice the step of using the network beam, mapped to the UE beam, to receive the periodic CSI and to receive the scheduling request. For example, in providing 5G wireless services, the Verizon Wireless Networks practice the step of using the network beam, mapped to the UE beam, to receive the periodic CSI and to receive the scheduling request (e.g., by receiving the UCI message discussed above that includes the periodic CSI and scheduling request). On information and belief, this functionality requires the Verizon Wireless Networks in their entirely assembled form, as specifically provisioned and operated by Verizon.

105. Accordingly, as illustrated above, the Verizon Wireless Networks directly infringe one or more claims of the '868 Patent. Verizon makes, uses, sells, offers for sale, exports, and/or imports, in this District and/or elsewhere in the United States, the Verizon Wireless Networks and/or wireless network services and thus directly infringes the '868 Patent.

106. Verizon has also indirectly infringed and continues to indirectly infringe the '868 Patent, as provided in 35 U.S.C. § 271(b), including at least by inducing infringement by others, such as Verizon's customers and end-users, in this District and elsewhere in the United States, to use the Verizon Wireless Networks in manners that infringe the '868 Patent. For example, Verizon's customers and end-users directly infringe via their use of the Verizon Wireless Networks to access and use 5G wireless network technologies, infringing the '868 Patent. Verizon induces such direct infringement through its affirmative acts of making, using, selling, offering to sell, and/or importing the Verizon Wireless Networks, as well as by advertising its infringing wireless network technologies and providing instructions, documentation, and other information to its customers and end-users to encourage and teach them how to use the infringing wireless network technologies, including but not limited to by Verizon providing in-store and online technical support, marketing materials, product manuals, advertisements, and other product documentation.

Verizon performs these affirmative acts with knowledge of the '868 Patent and with the intent, or willful blindness, that the induced acts directly infringe the '868 Patent.

107. Verizon has also indirectly infringed and continues to indirectly infringe the '868 Patent, as provided by 35 U.S.C. § 271(c), by contributing to direct infringement committed by others, such as Verizon's customers and end-users, in this District and elsewhere in the United States. Verizon's affirmative acts of selling and offering to sell wireless services in this District and elsewhere in the United States, and causing the Verizon Wireless Networks to be manufactured, used, sold, and offered for sale, contribute to Verizon's customers and end-users use of the Verizon Wireless Networks, such that the '868 Patent is directly infringed. The accused components in the Verizon Wireless Networks are material to the inventions claimed in the '868 Patent, are not staple articles or commodities of commerce, have no substantial non-infringing uses, and are known by Verizon to be especially made or adapted for use in the infringement of the '868 Patent. Verizon performs these acts with knowledge of the '868 Patent and with the intent, or willful blindness, that they cause direct infringement of the '868 Patent.

108. Verizon has also infringed and continues to infringe the '868 Patent, as provided by 35 U.S.C. § 271(f)(1), by supplying or causing to be supplied in or from the United States all or a substantial portion of the components of the Verizon Wireless Networks, uncombined in whole or in part, in such a manner as to actively induce their combination outside the United States in a manner that would infringe the '868 Patent if such combination occurred within the United States. Verizon has likewise infringed and continues to infringe the '868 Patent, as provided by 35 U.S.C. § 271(f)(2), by supplying or causing to be supplied in or from the United States components of the Verizon Wireless Networks that are especially made or especially adapted for infringement of the '868 Patent. The accused components in the Verizon Wireless Networks are material to the inventions claimed in the '868 Patent, are not staple articles or commodities of commerce, have no substantial non-infringing uses, and are known by Verizon to be especially made or adapted for

use in the infringement of the Patents-In-Suit. Verizon performs these affirmative acts with knowledge of the '868 Patent and with the intent, or willful blindness, that they cause direct infringement of the '868 Patent.

109. Verizon's infringement of the '868 Patent has damaged and will continue to damage the Plaintiffs.

110. Verizon's infringement of the '868 Patent has been and continues to be willful. Verizon has had knowledge and notice of the '868 Patent, and its infringement thereof, at least since as early as February 1, 2023. Verizon continues without license to make, use, sell, offer to sell, and/or import the Verizon Wireless Networks, willfully continuing Verizon's infringement.

COUNT V: DECLARATORY JUDGMENT THAT THE PLAINTIFFS HAVE COMPLIED WITH ETSI OBLIGATIONS AND COMPETITION LAW AND THAT THE DEFENDANT HAS NOT

111. Plaintiffs incorporate by reference the preceding paragraphs as though fully set forth herein.

112. In an abundance of caution and to ensure their compliance with ETSI's IPR Policy, the Plaintiffs informed Verizon that they were prepared to grant Verizon a license, on FRAND terms, to the Plaintiffs' patents that relate to Verizon’s infringing Wireless Networks.

113. Not later than August 25, 2022, the Plaintiffs sent Verizon correspondence initiating the Plaintiff's good faith efforts to license their patents to Verizon on FRAND terms.

114. Over the following months, the Plaintiffs' representatives routinely corresponded with Verizon representatives on several occasions. The Plaintiffs' representatives provided, in good faith, materials concerning their patents and technical details evidencing the use of their patents, including the Patents-In-Suit. For example, not later than February 1, 2023, the Plaintiffs' representatives provided Verizon credentials to access an online data room containing numerous example claim charts evidencing the use of Plaintiffs' patents. Claim charts evidencing Verizon's

infringement of each of the Patents-In-Suit were provided to Verizon in the data room as early as February 1, 2023 and by no later than March 15, 2023.

115. The Plaintiffs have provided Verizon multiple opportunities to license the Plaintiffs' patents on FRAND terms. Despite this, Verizon has not reciprocated Plaintiffs' good faith efforts. Verizon has instead declined to take a FRAND license, while continuing to operate the infringing Verizon Wireless Networks without a license to the Plaintiffs' patents.

116. The parties' FRAND license negotiations have been unsuccessful because Verizon has not negotiated in good faith. Verizon has failed to reciprocate the Plaintiffs' good faith efforts.

117. There are disputes between the Plaintiffs and Verizon concerning, among other things, whether Verizon is infringing the Patents-In-Suit, whether Verizon must take a license to the Patents-In-Suit, and what terms that license should include (whether FRAND terms or otherwise). The Plaintiffs have fully performed all obligations they may have under the FRAND contract, but Verizon has refused to license Plaintiffs' patents on the FRAND terms the Plaintiffs have offered. Verizon also has not reciprocated the Plaintiffs' efforts to negotiate a FRAND license in good faith. There is a case or controversy of sufficient immediacy, reality, and ripeness to warrant the issuance of declaratory judgment.

118. Accordingly, the Plaintiffs request a declaratory judgment by this Court finding that Plaintiffs' actions in connection with their negotiations toward a FRAND license with Verizon were conducted by Plaintiffs in good faith, complied with the ETSI IPR Policy, and were consistent with competition law requirements.

119. Further, the Plaintiffs request a declaratory judgment by this Court finding that Verizon has not negotiated with Plaintiffs in good faith, has not complied with ETSI's IPR Policy, and has waived any rights it may have under the ETSI IPR Policy.

DAMAGES

120. As a result of Defendant's acts of infringement, Plaintiffs have suffered actual and consequential damages. To the fullest extent permitted by law, Plaintiffs seek recovery of damages at least in the form of reasonable royalties.

DEMAND FOR JURY TRIAL

121. Plaintiffs hereby demand a jury trial for all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, the Plaintiffs respectfully request that this Court enter judgment in their favor ordering, finding, declaring, and/or awarding Plaintiffs relief as follows:

A. that Verizon infringes the Patents-In-Suit;

B. an award of damages resulting from Verizon's acts of infringement in accordance with 35 U.S.C. § 284;

C. that Verizon's infringement of the Patents-In-Suit is willful;

D. enhanced damages pursuant to 35 U.S.C. § 284;

E. a declaration that Plaintiffs, in their history of negotiations with Verizon in regard to a global license to the Plaintiffs' patents, have negotiated in good faith and have complied with the ETSI IPR Policy and any applicable laws, and with competition law;

F. a declaration that Verizon has not negotiated in good faith, has not complied with the ETSI IPR Policy, and has waived any rights it may have under the ETSI IPR Policy;

G. that this is an exceptional case and awarding the Plaintiffs their reasonable attorneys' fees pursuant to 35 U.S.C. § 285;

H. an accounting for acts of infringement and supplemental damages for infringement and/or damages not presented at trial, including, without limitation, pre-judgment and post-judgment interest;

I. all equitable relief the Court deems just and proper; and

J. such other relief which may be requested and to which the Plaintiffs are entitled.

DATED: January 4, 2024

Respectfully submitted,

/s/ *Robert Christopher Bunt*

Robert C. Bunt
Texas State Bar No. 00787165
rcbunt@pbatyler.com
PARKER, BUNT & AINSWORTH, P.C.
100 E. Ferguson, Suite 418
Tyler, Texas 75702
Tel: (903) 531-3535

Jason Sheasby
California State Bar No. 205455
(*pro hac vice* to be filed)
jsheasby@irell.com
Hong (Annita) Zhong, PhD
California State Bar No. 266924
(*pro hac vice* to be filed)
hzhong@irell.com
Christopher Abernethy
California State Bar No. 275986
(*pro hac vice* to be filed)
cabernethy@irell.com
Tony Rowles
California State Bar No. 301209
(*pro hac vice* to be filed)
trowles@irell.com
IRELL & MANELLA LLP
1800 Avenue of the Stars, Suite 900
Los Angeles, CA 90067-4276
Tel: (310) 277-1010

ATTORNEYS FOR PLAINTIFFS ASUS TECHNOLOGY LICENSING INC. AND CELERITY IP, LLC

CERTIFICATE OF SERVICE

I hereby certify that, on January 4, 2024, a true and correct copy of the foregoing was served to all counsel of record via CM/ECF.

/s/ Robert Christopher Bunt
Robert Christopher Bunt