UNITED STATES DISTRICT COURT EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

AX WIRELESS LLC,

Plaintiff,

v.

DELL INC., and DELL TECHNOLOGIES INC.,

Defendants.

Case No. 2:22-cv-00277-JRG-RSP

JURY TRIAL DEMANDED

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff AX Wireless LLC ("Plaintiff" or "AX Wireless") hereby alleges patent infringement against Defendants Dell Inc. ("Dell Inc") and Dell Technologies Inc. ("Dell Tech") (collectively, "Dell" or the "Defendants") as follows:

PARTIES

- 1. Plaintiff AX Wireless is a limited liability company organized and existing under the laws of the State of Texas, having a principal place of business at 2025 Guadalupe Street, Suite 260, Austin, Texas 78705.
- 2. Defendant Dell Inc. is a corporation organized and existing under the laws of the State of Delaware, with an address at One Dell Way, Round Rock, Texas 78682, and may be served with process through its registered agent Corporation Service Company, 211 E. 7th Street Suite 620, Austin, Texas 78701.
- 3. Defendant Dell Technologies Inc. is a corporation organized and existing under the laws of the State of Delaware, with an address at One Dell Way, Round Rock, Texas 78682,

and may be served with process through its registered agent Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808.

4. On information and belief, Defendant Dell Inc is a wholly-owned subsidiary of Defendant Dell Tech.

JURISDICTION; VENUE; JOINDER

- 5. This patent infringement action arises under the patent laws of the United States, Title 35 of the United States Code ("U.S.C.") § 101 et seq.
- 6. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331, 1332, and 1338(a).
- 7. Defendants are subject to this Court's specific and general personal jurisdiction consistent with the principles of due process and/or the Texas Long Arm Statute.
- 8. Defendants sell and offer to sell products and services throughout the State of Texas, including in this District, and introduce infringing products and services into the stream of commerce knowing that they will be sold in the State of Texas and this District. Defendants are registered with the Secretary of State to do business in the State of Texas.
- 9. Defendants have authorized sellers and sales representatives that offer for sale and sell products pertinent to this Complaint throughout the State of Texas, including in this District and to consumers throughout this District, such as: Best Buy, 422 West Loop 281, Suite 100, Longview, Texas 75605; Costco Wholesale, 3650 West University Drive, McKinney, Texas 75071; Office Depot, 422 West Loop 281, Suite 300, Longview, Texas 75605; Target, 3092 North Eastman Road, Suite 100, Longview, Texas 75605; and Wal-Mart, 1701 East End Boulevard North, Marshall, Texas 75670.
 - 10. Personal jurisdiction exists generally over Defendants because each Defendant

has sufficient minimum contacts with the forum as a result of business conducted within the State of Texas and this District.

- 11. Personal jurisdiction also exists over each Defendant because it, directly, through, or in consort with subsidiaries, affiliates or intermediaries, makes, uses, sells, offers for sale, imports, advertises, makes available, and/or markets products and services within the State of Texas and this District that infringe one or more claims of the asserted patents, as alleged more particularly below.
- Defendant resides in this District and/or has committed acts of infringement and has a regular and established place of business in this District. For example, Defendants previously had, operated out of, or made use of and/or currently has, operates out of, or makes use of offices and facilities in this District, such as at 2300 West Plano Parkway, Plano, Texas 75075. On information and belief, Defendants currently operate out of or make use of leased, work-share, co-op or other arrangements for space, offices or facilities in this District, including through their partners and/or agents.
- 13. For example, Defendants implement a comprehensive work-from-home policy under which they have adopted or ratified one or more additional places of business in this District, including but not limited to the homes of employees, such that the collection of these locations constitutes an aggregate network of regular and established places in this District, in and from which business is operated. On information and belief, Defendants specifically advertise for and solicit employees to reside and work remotely in this District, including to support its customers in the District, and provides and/or stores literature, equipment and/or inventory at those locations for the purpose of enabling these employees to conduct their jobs

and use such literature, equipment and/or inventory specifically in this District.

- 14. Each Defendant makes, uses, sells, offers to sell, and/or imports infringing products and services into and/or within this District, maintains a permanent and/or continuing presence within this District, and/or has the requisite minimum contacts with this District such that this venue is a fair and reasonable one. Upon information and belief, each Defendant has transacted and, at the time of the filing of the Complaint, is continuing to transact business within this District.
- 15. Defendants are properly joined under 35 U.S.C. § 299(a)(1) because, as set forth herein, Defendants commonly and/or jointly make, use, sell, offer to sell, and/or import infringing instrumentalities, such that at least one right to relief is asserted against Defendants jointly, severally, and/or in the alternative with respect to or arising out of the same transaction, occurrence, or series of transactions or occurrences relating to the making, using, importing into the United States, offering for sale, or selling of the same accused instrumentalities.
- 16. Defendants are properly joined under 35 U.S.C. § 299(a)(2) because, as set forth herein, Defendants make, use, sell, offer to sell in, and/or import into the United States the same or similar accused instrumentalities, such that questions of fact that are common to all Defendants will arise.

AX WIRELESS PATENTS

17. AX Wireless owns the entire right, title, and interest in and to each of the following patents, including the right to seek damages for past and ongoing infringement: U.S. Patent Nos. 9,584,262 ("the '262 Patent"); 9,614,566 ("the '566 Patent"); 9,973,361 ("the '361 Patent"); 10,079,707 ("the '707 Patent"); 10,291,449 ("the '449 Patent"); 10,554,459 ("the '459 Patent"); 10,917,272 ("the '272 Patent"); and 11,212,146 ("the '146 Patent") (collectively, "AX

Wireless Patents").

- 18. The '262 Patent issued on February 28, 2017. A true and correct copy of this patent is attached hereto as Exhibit 1.
- 19. The '566 Patent issued on April 4, 2017. A true and correct copy of this patent is attached hereto as Exhibit 2.
- 20. The '361 Patent issued on May 15, 2018. A true and correct copy of this patent is attached hereto as Exhibit 3.
- 21. The '707 Patent issued on September 18, 2018. A true and correct copy of this patent is attached hereto as Exhibit 4.
- 22. The '449 Patent issued on May 14, 2019. A true and correct copy of this patent is attached hereto as Exhibit 5.
- 23. The '459 Patent issued on February 4, 2020. A true and correct copy of this patent is attached hereto as Exhibit 6.
- 24. The '272 Patent issued on February 9, 2021. A true and correct copy of this patent is attached hereto as Exhibit 7.
- 25. The '146 Patent issued on December 28, 2021. A true and correct copy of this patent is attached hereto as Exhibit 8.
- 26. The named inventors of each of the AX Wireless Patents are: Marcos C. Tzannes and Joon Bae Kim.
- 27. The AX Wireless Patents are directed to wireless OFDM (orthogonal frequency division multiplexing) networks and systems, including wireless OFDM transceivers, which employ variable header repetition.
 - 28. The technology claimed in the AX Wireless Patents is adopted in the 802.11ax

standard promulgated by the Institute of Electrical and Electronics Engineers (IEEE), which sets forth certain technical specifications for wireless local area networks ("WLANs"), also known as "Wi-Fi."

- 29. The IEEE 802.11ax standard and its enhancements are marketed by the Wi-Fi Alliance as "Wi-Fi 6" and "Wi-Fi 6E." Wi-Fi 6 was approved on or about February 9, 2021 and published on or about May 19, 2021. Wi-Fi 6E is an extension of Wi-Fi 6 (2.4 GHz and 5 GHz) to the 6 GHz frequency band.
- 30. Wi-Fi 6 utilizes OFDM and OFDMA (orthogonal frequency-division multiple access) technology, and employs variable header repetition, to provide enhanced data throughput, increased spectral efficiency, auto-detection, backwards compatibility, and other benefits.
- 31. Wi-Fi 6 may be deployed in dense environments, such as corporate offices, shopping centers, and apartment complexes, and provides backwards compatibility, increased network capacity and simultaneous connectivity, greater channel width, more effective bandwidth, and reduced power consumption.

ACCUSED INSTRUMENTALITIES

- 32. Defendants make, use, sell, and/or offer to sell in, and/or import into, the United States products that implement or embody Wi-Fi 6 technology and/or implement or comply with the Wi-Fi 6 standard ("Wi-Fi 6 Instrumentalities"). Defendants' Wi-Fi 6 Instrumentalities infringe the AX Wireless Patents, including the '361 Patent, '707 Patent, '272 Patent, '146 Patent, '262 Patent, '566 Patent, '449 Patent and '459 Patent (collectively, the "Asserted Patents") ("Accused Instrumentalities").
 - 33. Wi-Fi 6 Instrumentalities include, but are not limited to, smartphones, personal

computers (PCs) (desktops and laptops), tablets, networking devices, Internet of things ("IoT") devices, appliances, and other consumer and home electronics. On information and belief, each Defendant certifies the interoperability of its Wi-Fi 6 Instrumentalities as Wi-Fi CERTIFIED 6 (based on IEEE 802.11ax standard) through the Wi-Fi Alliance.

34. Appendix A provides a non-exhaustive list of Defendants' Accused Instrumentalities. Each Accused Instrumentality comprises a Wi-Fi 6 or 802.11ax transceiver. For example, the Alienware m17 R5 Gaming Laptop comprises a Wi-Fi 6 or 802.11 ax transceiver. On information and belief, the Accused Instrumentalities employ, implement or utilize materially the same Wi-Fi 6 technology, such that facts material to infringement by one Accused Instrumentality will be material to all Accused Instrumentalities.

COUNT I: THE '361 PATENT

35. Each Defendant infringes at least claim 1 of the '361 Patent. Appendix B details the manner in which the Accused Instrumentalities infringe this patent by way of an exemplary chart as illustrated through a representative example. On information and belief, the Accused Instrumentalities are materially the same with respect to infringement of this patent.

COUNT II: THE '707 PATENT

36. Each Defendant infringes at least claim 1 of the '707 Patent. Appendix C details the manner in which the Accused Instrumentalities infringe this patent by way of an exemplary chart as illustrated through a representative example. On information and belief, the Accused Instrumentalities are materially the same with respect to infringement of this patent.

COUNT III: THE '272 PATENT

37. Each Defendant infringes at least claim 1 of the '272 Patent. Appendix D details the manner in which the Accused Instrumentalities infringe this patent by way of an exemplary

chart as illustrated through a representative example. On information and belief, the Accused Instrumentalities are materially the same with respect to infringement of this patent.

COUNT IV: THE '146 PATENT

38. Each Defendant infringes at least claim 1 of the '146 Patent. Appendix E details the manner in which the Accused Instrumentalities infringe this patent by way of an exemplary chart as illustrated through a representative example. On information and belief, the Accused Instrumentalities are materially the same with respect to infringement of this patent.

COUNT V: THE '262 PATENT

39. Each Defendant infringes at least claim 1 of the '262 Patent. Appendix F details the manner in which the Accused Instrumentalities infringe this patent by way of an exemplary chart as illustrated through a representative example. On information and belief, the Accused Instrumentalities are materially the same with respect to infringement of this patent.

COUNT VI: THE '566 PATENT

40. Each Defendant infringes at least claim 1 of the '566 Patent. Appendix G details the manner in which the Accused Instrumentalities infringe this patent by way of an exemplary chart as illustrated through a representative example. On information and belief, the Accused Instrumentalities are materially the same with respect to infringement of this patent.

COUNT VII: THE '449 PATENT

41. Each Defendant infringes at least claim 1 of the '449 Patent. Appendix H details the manner in which the Accused Instrumentalities infringe this patent by way of an exemplary chart as illustrated through a representative example. On information and belief, the Accused Instrumentalities are materially the same with respect to infringement of this patent.

COUNT VIII: THE '459 PATENT

- 42. Each Defendant infringes at least claim 1 of the '459 Patent. Appendix I details the manner in which the Accused Instrumentalities infringe this patent by way of an exemplary chart as illustrated through a representative example. On information and belief, the Accused Instrumentalities are materially the same with respect to infringement of this patent.
- 43. Defendants have actual notice of the Asserted Patents and/or their infringing activities since prior to and no later than the filing of the Complaint, including but not limited to notice via a January 27, 2022 letter, which identified specific AX Wireless Patents and infringing instrumentalities.
- 44. Each Defendant has committed and continues to commit acts of direct infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing Accused Instrumentalities.
- 45. Each Defendant has been and is indirectly infringing the Asserted Patents by actively inducing or contributing to the direct infringement by others of the Asserted Patents, in the United States, the State of Texas, and this District.
- 46. Each Defendant has induced and continues to induce each other, their customers, and other third parties, such as resellers and end-consumers of Accused Instrumentalities, to directly infringe the Asserted Patents by making, using, selling, offering to sell, and/or importing into the United States the Accused Instrumentalities through affirmative acts.
- 47. The affirmative acts of inducement by Defendants include, but are not limited to, any one or a combination of encouraging and/or facilitating third-party infringement through the advertisement, marketing, and dissemination of the Accused Instrumentalities and their components; and creating and publishing promotional and marketing materials, supporting materials, product manuals, and/or technical support and information relating to the Accused

Instrumentalities.

- 48. Each Defendant specifically intended and was aware that the ordinary and customary use of the Accused Instrumentalities would infringe the Asserted Patents.
- 49. Defendants knew that the induced conduct would constitute infringement, and intended said infringement at the time of committing the aforementioned acts, such that those acts and conduct have been and continue to be committed with the specific intent to induce infringement, or to deliberately avoid learning of the infringing circumstances at the time those acts were committed, so as to be willfully blind to the infringement they induced.
- 50. Defendants took active steps to encourage end users to use and operate the Accused Instrumentalities, despite knowing of the Asserted Patents in the United States, in a manner they knew directly infringes each element of the claims of the Asserted Patents. Further, Defendants provided product manuals and other technical information that cause their subscribers, customers, and other third parties to use and to operate the Accused Instrumentalities for their ordinary and customary use, such that Defendants' customers and other third parties have directly infringed the Asserted Patents, through the normal and customary use of the Accused Instrumentalities.
- 51. Therefore, each Defendant is liable for infringement of the Asserted Patents and that infringement has been and continues to be willful in nature.
- 52. AX Wireless has incurred and will continue to incur substantial damages; and has been and continues to be irreparably harmed by each Defendant's infringement. Therefore, AX Wireless is entitled to an injunction, actual and/or compensatory damages, reasonable royalties, pre- and post-judgment interest, enhanced damages, attorney fees, and costs.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff AX Wireless respectfully requests that this Court:

A. Enter judgment in favor of AX Wireless that each of the Asserted Patents is valid

and enforceable;

B. Enter judgment in favor of AX Wireless that each Defendant has infringed and

continues to infringe each of the Asserted Patents, and that such infringement is willful;

C. Award AX Wireless all monetary relief available under the laws of the United

States, including but not limited to 35 U.S.C. § 284;

D. Order each Defendant to pay ongoing royalties in an amount to be determined for

any continued infringement after the date of judgment;

E. Declare this case exceptional and award AX Wireless its reasonable attorney fees

under 35 U.S.C. § 285;

F. Enjoin each Defendant and its subsidiaries, and their officers, agents, servants,

employees, and all persons in active concert with any of the foregoing from further infringement;

and

G. Grant AX Wireless all such other relief as the Court deems just and reasonable.

DEMAND FOR JURY TRIAL

AX Wireless demands a jury trial on all issues so triable pursuant to Federal Rule of Civil

Procedure 38.

Date: October 17, 2022

/s/ Andrew Y. Choung

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