

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

WI-LAN, INC., and WI-LAN USA, INC.,

Plaintiffs,

v.

TELEFONAKTIEBOLAGET LM
ERICSSON, ERICSSON INC.,
AT&T INC., AT&T MOBILITY LLC,
VERIZON COMMUNICATIONS INC.,
CELLCO PARTNERSHIP D/B/A VERIZON
WIRELESS,
SPRINT CORPORATION,
SPRINT SOLUTIONS, INC.,
SPRINT SPECTRUM L.P.,
BOOST MOBILE, LLC,
T-MOBILE USA, INC., and
T-MOBILE US, INC.,

Defendants.

CIVIL ACTION NO. 2:17-cv-181

JURY TRIAL DEMANDED

PLAINTIFF'S ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT

Plaintiffs Wi-LAN, Inc. and Wi-LAN USA, Inc. file this Original Complaint against Telefonaktiebolaget LM Ericsson; Ericsson Inc.; AT&T Inc.; AT&T Mobility LLC; Verizon Communications Inc.; Cellco Partnership d/b/a Verizon Wireless; Sprint Corporation; Sprint Solutions, Inc.; Sprint Spectrum L.P.; Boost Mobile, LLC; T-Mobile USA, Inc.; and T-Mobile US, Inc. (collectively, the "Defendants") for infringement of U.S. Patent Nos. 8,457,061 (the "'061 Patent"), 9,332,572 (the "'572 Patent"), 9,420,573 (the "'573 Patent"), 8,532,052 (the "'052 Patent"), and 9,380,607 (the "'607 Patent").

THE PARTIES

1. Plaintiff Wi-LAN, Inc. is a corporation organized and existing under the laws of Canada with its principal place of business at 303 Terry Fox Drive, Suite 300, Ottawa, Ontario, Canada K2K 3J1.

2. Plaintiff Wi-LAN USA, Inc. (together, with Wi-LAN, Inc., “Wi-LAN” or “Plaintiff”) is a corporation organized and existing under the laws of Florida with its principal place of business at 600 Anton Blvd., Suite 1350, Costa Mesa, CA, 92626. Wi-LAN is a leading technology innovation and licensing business actively engaged in the development and licensing of new technologies.

3. Telefonaktiebolaget LM Ericsson is a corporation organized and existing under the laws of the country of Sweden. On information and belief, this Defendant may be served with process at its principal place of business at Torshamnsgatan 21, Kista, 164 80 Stockholm, Sweden. This Defendant does business in the State of Texas and in the Eastern District of Texas.

4. Ericsson Inc. (with Telefonaktiebolaget LM Ericsson, “Ericsson”) is a subsidiary of Defendant Telefonaktiebolaget LM Ericsson and is a corporation organized and existing under the laws of the state of Delaware. This Defendant may be served with process at its principal place of business at 6300 Legacy Drive, Plano, Texas 75024. This Defendant does business in the State of Texas and in the Eastern District of Texas.

5. AT&T Inc. is a Delaware corporation with its principal place of business in Dallas, Texas. This Defendant may be served with process through its agent, CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201-3136. This Defendant does business in the State of Texas and in the Eastern District of Texas.

6. AT&T Mobility LLC (with AT&T Inc., “AT&T”) is a Delaware limited liability company with its principal place of business in Atlanta, Georgia. This Defendant may be served

with process through its agent, CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201-3136. This Defendant does business in the State of Texas and in the Eastern District of Texas.

7. Verizon Communications Inc. is a Delaware corporation with its principal place of business in New York, New York. This Defendant may be served with process through its agent, The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801. This Defendant does business in the State of Texas and in the Eastern District of Texas

8. Cellco Partnership d/b/a Verizon Wireless (with Verizon Communications Inc., “Verizon”) is a Delaware general partnership with its principal place of business in Basking Ridge, New Jersey. This Defendant may be served with process through its agent, The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801. This Defendant does business in the State of Texas and in the Eastern District of Texas.

9. Sprint Corporation is a Delaware corporation with its principal place of business in Overland Park, Kansas. This Defendant may be served with process through its agent, Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808. This Defendant does business in the State of Texas and in the Eastern District of Texas.

10. Sprint Solutions, Inc. is a Delaware corporation with its principal place of business in Reston, Virginia. This Defendant may be served with process through its agent, Corporation Service Company, 211 E. 7th Street, Suite 620, Austin, TX 78701-3218. This Defendant does business in the State of Texas and in the Eastern District of Texas.

11. Sprint Spectrum L.P. is a Delaware limited partnership with its principal place of business in Overland Park, Kansas. This Defendant may be served with process through its

agent, Corporation Service Company, 211 E. 7th Street, Suite 620, Austin, TX 78701-3218.

This Defendant does business in the State of Texas and in the Eastern District of Texas.

12. Boost Mobile, LLC (with Sprint Corporation, Sprint Solutions, Inc., and Sprint Spectrum L.P., “Sprint”) is a Delaware limited liability company with its principal place of business in Irvine, California. This Defendant may be served with process through its agent, Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808. This Defendant does business in the State of Texas and in the Eastern District of Texas.

13. T-Mobile USA, Inc. is a Delaware corporation with a principal place of business in Bellevue, Washington. T-Mobile USA, Inc. maintains a significant presence in Richardson, Texas and offers products and services under the T-Mobile and MetroPCS brands. This Defendant may be served with process through its agent, Corporation Service Company, 211 E. 7th Street, Suite 620, Austin, TX 78701-3218. This Defendant does business in the State of Texas and in the Eastern District of Texas.

14. T-Mobile US, Inc. (with T-Mobile USA, Inc., “T-Mobile”) is a Delaware corporation with its principal place of business in Bellevue, Washington. T-Mobile US, Inc. maintains a significant presence in Richardson, Texas, and offers products and services under the T-Mobile and MetroPCS brands. This Defendant may be served with process through its agent, Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808. This Defendant does business in the State of Texas and in the Eastern District of Texas.

JURISDICTION AND VENUE

15. This action arises under the patent laws of the United States, namely 35 U.S.C. §§ 271, 281, and 284-285, among others.

16. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331, 1338(a), and 1367.

17. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391(b) and (c) and 1400(b). Each Defendant is deemed to reside in this judicial district, has committed acts of infringement in this judicial district, has purposely transacted business in this judicial district, and/or has regular and establish places of business in this judicial district.

18. Each Defendant is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to their substantial business in this State and judicial district, including: (i) at least part of their infringing activities alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent conduct, and/or deriving substantial revenue from goods sold and services provided to Texas residents.

COUNT I

(INFRINGEMENT OF U.S. PATENT NO. 8,457,061)

19. Wi-LAN incorporates paragraphs 1 through 18 herein by reference.

20. The '061 Patent, titled "Method and System for Adaptively Obtaining Bandwidth Allocation Requests," is valid and enforceable, and was duly and legally issued by the United States Patent and Trademark Office on June 4, 2013 after full and fair examination. The inventors of the '061 Patent are Brian Spinar, Kenneth Stanwood, Sheldon Gilbert, Israel Jay Klein, and James Mollenauer. Wi-LAN, Inc. is the sole owner of the '061 Patent. Wi-LAN USA, Inc. holds exclusive rights under the '061 Patent, including the exclusive right to license Defendants. A copy of the '061 Patent is attached hereto as Exhibit A.

21. Defendants Ericsson, AT&T, Verizon, Sprint, and T-Mobile have directly and/or indirectly infringed (by inducing infringement), and continue to directly and/or indirectly infringe (by inducing infringement), one or more claims of the '061 Patent in this judicial district and elsewhere in Texas and the United States without the consent or authorization of Wi-LAN,

including, at least claims 1 and 4-14, by making, having made, offering for sale or use, selling, importing, and/or using Ericsson base station equipment that supports LTE, including the Ericsson RBS 6000 series and the Ericsson Radio System series (the “’061 Accused Products”).

22. Defendants directly infringe the apparatus claims of the ’061 Patent by making, having made, offering for sale, selling, importing, and/or using the ’061 Accused Products. Defendants also directly infringe the ’061 Patent by making, having made, offering for sale, selling, importing, and/or using the ’061 Accused Products to practice the claimed methods. Defendants are thereby liable for direct infringement.

23. As discussed above, each of the ’061 Accused Products supports LTE and, thus, is designed for and operates in compliance with one or more of the LTE standards, including (for example) 3GPP TS 36.300, 3GPP TS 36.321, 3GPP TS 36.211, 3GPP TS 36.213, and TS 36.104, which provide evidence of infringement. More specifically, each of the ’061 Accused Products is a base station configured to support LTE (a broadband wireless communication system where a base station dynamically allocates uplink bandwidth and exchanges uplink and downlink traffic with one or more remote units over a shared uplink and a shared downlink). The ’061 Accused Products perform or embody asserted claims in that they generate and transmit uplink and downlink maps with uplink and downlink allocations (see, e.g., 3GPP TS 36.300 v8.12.0 § 11.1 (discussing allocation of resources to UEs on PDCCH(s))), identify a bandwidth request in the uplink traffic received from a remote unit (see, e.g., 3GPP TS 36.321 v8.12.0 §§ 5.4.5, 6.1.3.1, 6.2.1 (discussing use of buffer status reports and corresponding MAC PDU subheaders with LCIDs to identify buffer status reports)), allocate uplink bandwidth to the requesting remote unit (see, e.g., 3GPP TS 36.300 v8.12.0 §§ 11.1, 16.1.4 (discussing allocation of UL resources to UEs)), and updating the uplink map to account for the uplink bandwidth grant (see, e.g., 3GPP TS 36.300 v8.12.0 § 11.1.2, 3GPP TS 36.211 v8.9.0 § 6.8.1, 3GPP TS 36.213

v8.8.0 § 8 (discussing scheduling assignments and allocation of UL resources to UEs on PDCCH(s))).

24. Additionally, Defendant Ericsson is liable for indirect infringement of the '061 Patent because it induces direct infringement of the patent by its customers (including Defendants AT&T, Verizon, Sprint, and/or T-Mobile) who practice the claimed methods.

25. On information and belief, Defendant Ericsson has had knowledge of the '061 Patent since its issuance, as a result of ongoing discussions with, and litigation between, Wi-LAN and Ericsson.

26. Since then, Defendant Ericsson has known, has specifically intended, and continues to specifically intend for entities who use the '061 Accused Products to use them in a manner that infringes the '061 Patent. On information and belief, Defendant Ericsson, despite having knowledge of the '061 Patent, has provided, and continues to provide instructional materials, such as operating manuals and service manuals that specifically teach its customers to operate the '061 Accused Products in an infringing manner. Defendant Ericsson further provides its customers with technical support to enable them to deploy and operate the '061 Accused Products on their LTE networks. By providing such instructions and support, Defendant Ericsson knows (and has known), or should know (and should have known), that its actions have, and continue to, actively induce infringement.

27. Despite having knowledge of the '061 Patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '061 Patent, Defendant Ericsson has nevertheless continued its infringing conduct. Thus, Defendant Ericsson's infringing activities relative to the '061 Patent have been, and continue to be, willful, wanton, in malicious bad faith, deliberate, consciously wrongful or flagrant in disregard of Wi-LAN's rights.

28. Defendants Ericsson and AT&T test, make, use, offer for sale, sell, and/or import the '061 Accused Products described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices and the deployment and support of AT&T's LTE network. Accordingly, Defendants Ericsson and AT&T are jointly, severally, or alternatively liable for infringements described in this Count.

29. Defendants Ericsson and Verizon test, make, use, offer for sale, sell, and/or import the '061 Accused Products described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices and the deployment and support of Verizon's LTE network. Accordingly, Defendants Ericsson and Verizon are jointly, severally, or alternatively liable for infringements described in this Count.

30. Defendants Ericsson and Sprint test, make, use, offer for sale, sell, and/or import the '061 Accused Products described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices and the deployment and support of Sprint's LTE network. Accordingly, Defendants Ericsson and Sprint are jointly, severally, or alternatively liable for infringements described in this Count.

31. Defendants Ericsson and T-Mobile test, make, use, offer for sale, sell, and/or import the '061 Accused Products described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices and the deployment and support of T-Mobile's LTE network. Accordingly, Defendants Ericsson and T-Mobile are jointly, severally, or alternatively liable for infringements described in this Count.

32. Wi-LAN has been damaged as a result of Defendants' infringing conduct described in this Count. Defendants are, thus, liable to Wi-LAN in an amount that adequately compensates it for Defendants' infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT II

(INFRINGEMENT OF U.S. PATENT NO. 9,420,573)

33. Wi-LAN incorporates paragraphs 1 through 18 herein by reference.

34. The '573 Patent, titled "Methods and Systems for Transmission of Multiple Modulated Signals over Wireless Networks," is valid and enforceable, and was duly and legally issued by the United States Patent and Trademark Office on August 16, 2016 after full and fair examination. The inventors of the '573 Patent are Kenneth Stanwood, Sheldon Gilbert, Israel Jay Klein, and James Mollenauer. Wi-LAN, Inc. is the sole owner of the '573 Patent. Wi-LAN USA, Inc. holds exclusive rights under the '573 Patent, including the exclusive right to license Defendants. A copy of the '573 Patent is attached hereto as Exhibit B.

35. Defendants Ericsson, AT&T, Verizon, Sprint, and T-Mobile have directly and/or indirectly infringed (by inducing infringement), and continue to directly and/or indirectly infringe (by inducing infringement), one or more claims of the '573 Patent in this judicial district and elsewhere in Texas and the United States without the consent or authorization of Wi-LAN, including, at least claims 1, 3-4, 6-14, 16-19, by making, having made, offering for sale or use, selling, importing, and/or using Ericsson base station equipment that supports LTE, including the Ericsson RBS 6000 series and the Ericsson Radio System series (the "'573 Accused Products").

36. Defendants directly infringe the apparatus claims of the '573 Patent by making, having made, offering for sale, selling, importing, and/or using the '573 Accused Products. Defendants also directly infringe the '573 Patent by making, having made, offering for sale, selling, importing, and/or using the '573 Accused Products to practice the claimed methods. Defendants are thereby liable for direct infringement.

37. As discussed above, each of the '573 Accused Products supports LTE and, thus, is designed for and operates in compliance with one or more of the LTE standards, including (for example) 3GPP TS 36.300, 3GPP TS 36.321, 3GPP TS 36.213 and 3GPP TS 36.331, which provide evidence of infringement. More specifically, each of the '573 Accused Products is a base station configured to support LTE (a base station that allocates transmission to, or communicates with, a plurality of wireless mobile units in a bandwidth on demand communication system). The '573 Accused Products perform or embody asserted claims in that they receive an explicit message from a cellular device that indicates that the cellular device has data awaiting transmission (see, e.g., 3GPP TS 36.213 v8.8.0 § 10.1, 3GPP TS 36.321 v8.12.0 § 5.4.4 (discussing signaling of scheduling request from UE to eNB for UL-SCH resources)), provide a transmission opportunity to the cellular device so that the cellular device may inform the base station of the amount of data awaiting to be transmitted (see, e.g., 3GPP TS 36.321 v8.12.0 § 5.4.5 (UE may transmit a buffer status report to eNB if the UE has been allocated UL resources)), receive an indication of the amount of data awaiting transmission from the cellular device (see, e.g., 3GPP TS 36.321 v8.12.0 §§ 5.4.5, 6.1.3 (discussing use of buffer status reports to provide eNB with information about the amount of data available for transmission in UL buffers of UE)), provide the cellular device with an uplink transmission grant (see, e.g., 3GPP TS 36.321 v8.12.0 § 5.4.1, 3GPP TS 36.300 v8.12.0 §§ 11.1.2, 16.1.4 (discussing allocation of UL grant to UE)), and receive uplink data from the cellular device (see, e.g., 3GPP TS 36.321 v8.12.0 § 5.4.1, 3GPP TS 36.302 v8.2.1 § 6.1 (describing transmission of uplink data from UE on UL-SCH)).

38. Additionally, Defendant Ericsson is liable for indirect infringement of the '573 Patent because it induces direct infringement of the patent by its customers (including Defendants AT&T, Verizon, Sprint, and/or T-Mobile) who practice the claimed methods.

39. On information and belief, Defendant Ericsson has had knowledge of the '573 Patent since its issuance, as a result of ongoing discussions with and litigation between Wi-LAN and Ericsson.

40. Since then, Defendant Ericsson has known, has specifically intended, and continues to specifically intend for entities who use the '573 Accused Products to use them in a manner that infringes the '573 Patent. On information and belief, Defendant Ericsson, despite having knowledge of the '573 Patent, has provided, and continues to provide instructional materials, such as operating manuals and service manuals that specifically teach its customers to operate the '573 Accused Products in an infringing manner. Defendant Ericsson further provides its customers with technical support to enable them to deploy and operate the '573 Accused Products on their LTE networks. By providing such instructions and support, Defendant Ericsson knows (and has known), or should know (and should have known), that its actions have, and continue to, actively induce infringement.

41. Despite having knowledge of the '573 Patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '573 Patent, Defendant Ericsson has nevertheless continued its infringing conduct. Thus, Defendant Ericsson's infringing activities relative to the '573 Patent have been, and continue to be, willful, wanton, in malicious bad faith, deliberate, consciously wrongful or flagrant in disregard of Wi-LAN's rights.

42. Defendants Ericsson and AT&T test, make, use, offer for sale, sell, and/or import the '573 Accused Products described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices and the deployment and support of AT&T's LTE network. Accordingly, Defendants Ericsson and AT&T are jointly, severally, or alternatively liable for infringements described in this Count.

43. Defendants Ericsson and Verizon test, make, use, offer for sale, sell, and/or import the '573 Accused Products described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices and the deployment and support of Verizon's LTE network. Accordingly, Defendants Ericsson and Verizon are jointly, severally, or alternatively liable for infringements described in this Count.

44. Defendants Ericsson and Sprint test, make, use, offer for sale, sell, and/or import the '573 Accused Products described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices and the deployment and support of Sprint's LTE network. Accordingly, Defendants Ericsson and Sprint are jointly, severally, or alternatively liable for infringements described in this Count.

45. Defendants Ericsson and T-Mobile test, make, use, offer for sale, sell, and/or import the '573 Accused Products described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices and the deployment and support of T-Mobile's LTE network. Accordingly, Defendants Ericsson and T-Mobile are jointly, severally, or alternatively liable for infringements described in this Count.

46. Wi-LAN has been damaged as a result of Defendants' infringing conduct described in this Count. Defendants are, thus, liable to Wi-LAN in an amount that adequately compensates it for Defendants' infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT III

(INFRINGEMENT OF U.S. PATENT NO. 9,332,572)

47. Wi-LAN incorporates paragraphs 1 through 18 herein by reference.

48. The '572 Patent, titled "Pre-allocated random access identifiers," is valid and enforceable, and was duly and legally issued by the United States Patent and Trademark Office on May 3, 2016 after full and fair examination. The inventors of the '572 Patent are Yair Bourlas, Adam Newham, Lei Wang, and Srikanth Gummadi. Wi-LAN, Inc. is the sole owner of the '572 Patent. Wi-LAN USA, Inc. holds exclusive rights under the '572 Patent, including the exclusive right to license Defendants. A copy of the '572 Patent is attached hereto as Exhibit C.

49. Defendants Ericsson, AT&T, Verizon, Sprint, and T-Mobile have directly and/or indirectly infringed (by inducing infringement), and continue to directly and/or indirectly infringe (by inducing infringement), one or more claims of the '572 Patent in this judicial district and elsewhere in Texas and the United States without the consent or authorization of Wi-LAN, including, at least claims 1, 2, 5-6, 9, 12-13, 15-16, 19-21, 23-24, 27-29, 31, 36-38, 40, and 45-47, by making, having made, offering for sale or use, selling, importing, and/or using Ericsson base station equipment that supports LTE, including the Ericsson RBS 6000 series and the Ericsson Radio System series (the "'572 Accused Products").

50. Defendants Ericsson, AT&T, Verizon, Sprint, and T-Mobile directly infringe the apparatus claims of the '572 Patent by making, having made, offering for sale, selling, importing, and/or using the '572 Accused Products. Defendants Ericsson, Verizon, Sprint, and T-Mobile also directly infringe the '572 Patent by making, having made, offering for sale, selling, importing, and/or using the '572 Accused Products to practice the claimed methods. Defendants are thereby liable for direct infringement.

51. As discussed above, each of the '572 Accused Products supports LTE and, thus, is designed for and operates in compliance with one or more of the LTE standards, including (for example) 3GPP TS 36.104, 3GPP TS 36.300, 3GPP TS 36.321, 3GPP TS 36.331, and 3GPP TS 36.211, which provide evidence of infringement. More specifically, each of the '572 Accused

Products is a base station configured to support handover of a mobile station using a non-contention random access preamble as described by the LTE standards. The '572 Accused Products perform or embody asserted claims in that they transmit, or are operable to transmit, an indication of a reserved set of access identifiers for non-contention access over a shared random access channel (see, e.g., 3GPP TS 36.300 v8.12.0 §§ 10.1.5.1, 10.1.5.2, 3GPP TS 36.331 v8.21.0 §§ 5.2.1.1, 6.3.1, 6.3.2 (disclosing information indicating a set of preambles for contention access is broadcast with system information and those random access preambles not within the set are for non-contention access)), communicate an indication of a non-contention reserved access identifier (see, e.g., 3GPP TS 36.300 v8.12.0 §§ 10.1.2.1, 10.1.5.2 (discussing assignment of non-contention random access preamble to UE by eNB)), receive, during handover of a mobile station, a non-contention reserved access identifier over a shared random access channel (see, e.g., 3GPP TS 36.300 v8.12.0 § 10.1.5.2 (discussing receipt of non-contention random access preamble from UE by eNB)), and transmit a feedback message that includes a timing adjustment to the mobile station (see, e.g., 3GPP TS 36.300 v8.12.0 § 10.1.5.2 (discussing transmission of random access response with timing alignment information from eNB to UE)).

52. Additionally, Defendant Ericsson is liable for indirect infringement of the '572 Patent because it induces direct infringement of the patent by its customers (including Defendants Verizon, Sprint, and/or T-Mobile) who practice the claimed methods.

53. On information and belief, Defendant Ericsson has had knowledge of the '572 Patent since its issuance, as a result of ongoing discussions with and litigation between Wi-LAN and Ericsson.

54. Since then, Defendant Ericsson has known, has specifically intended, and continues to specifically intend for entities who use the '572 Accused Products to use them in a

manner that infringes the '572 Patent. On information and belief, Defendant Ericsson, despite having knowledge of the '572 Patent, has provided, and continues to provide instructional materials, such as operating manuals and service manuals that specifically teach its customers to operate the '572 Accused Products in an infringing manner. Defendant Ericsson further provides its customers with technical support to enable them to deploy and operate the '572 Accused Products on their LTE networks. By providing such instructions and support, Defendant Ericsson knows (and has known), or should know (and should have known), that its actions have, and continue to, actively induce infringement.

55. Despite having knowledge of the '572 Patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '572 Patent, Defendant Ericsson has nevertheless continued its infringing conduct. Thus, Defendant Ericsson's infringing activities relative to the '572 Patent have been, and continue to be, willful, wanton, in malicious bad faith, deliberate, consciously wrongful or flagrant in disregard of Wi-LAN's rights.

56. Defendants Ericsson and AT&T test, make, use, offer for sale, sell, and/or import the '572 Accused Products described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices and the deployment and support of AT&T's LTE network. Accordingly, Defendants Ericsson and AT&T are jointly, severally, or alternatively liable for infringements described in this Count.

57. Defendants Ericsson and Verizon test, make, use, offer for sale, sell, and/or import the '572 Accused Products described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices and the deployment and support of Verizon's LTE network. Accordingly, Defendants Ericsson and Verizon are jointly, severally, or alternatively liable for infringements described in this Count.

58. Defendants Ericsson and Sprint test, make, use, offer for sale, sell, and/or import the '572 Accused Products described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices and the deployment and support of Sprint's LTE network. Accordingly, Defendants Ericsson and Sprint are jointly, severally, or alternatively liable for infringements described in this Count.

59. Defendants Ericsson and T-Mobile test, make, use, offer for sale, sell, and/or import the '572 Accused Products described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices and the deployment and support of T-Mobile's LTE network. Accordingly, Defendants Ericsson and T-Mobile are jointly, severally, or alternatively liable for infringements described in this Count.

60. Wi-LAN has been damaged as a result of Defendants' infringing conduct described in this Count. Defendants are, thus, liable to Wi-LAN in an amount that adequately compensates it for Defendants' infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT IV

(INFRINGEMENT OF U.S. PATENT NO. 8,532,052)

61. Wi-LAN incorporates paragraphs 1 through 18 herein by reference.

62. The '052 Patent, titled "Pre-allocated random access identifiers," is valid and enforceable, and was duly and legally issued by the United States Patent and Trademark Office on September 10, 2013 after full and fair examination. The inventors of the '052 Patent are Yair Bourlas, Adam Newham, Lei Wang, and Srikanth Gummadi. Wi-LAN, Inc. is the sole owner of the '052 Patent. Wi-LAN USA, Inc. holds exclusive rights under the '052 Patent, including the exclusive right to license Defendants. A copy of the '052 Patent is attached hereto as Exhibit D.

63. Defendants Ericsson, Verizon, Sprint, and T-Mobile have directly and/or indirectly infringed (by inducing infringement), and continue to directly and/or indirectly infringe (by inducing infringement), one or more claims of the '052 Patent in this judicial district and elsewhere in Texas and the United States without the consent or authorization of Wi-LAN, including, at least claims 1, 2-6, 10-14, 16-18, 20-22, and 24-25, by making, having made, offering for sale or use, selling, and/or using LTE networks implemented using Ericsson base station equipment, including the Ericsson RBS 6000 series and the Ericsson Radio System series (the "'052 Accused Networks").

64. Defendants Ericsson, Verizon, Sprint, and T-Mobile directly infringe claims 10-14, 16-18, 20-22, and 24-25 of the '052 Patent by making, having made, offering for sale, selling, and/or using the '052 Accused Networks. Defendants Ericsson, Verizon, Sprint, and T-Mobile also directly infringe claims 1 and 2-6 of the '052 Patent by making, having made, offering for sale, selling, and/or using the '052 Accused Networks to practice the claimed methods. Defendants Ericsson, Verizon, Sprint, and T-Mobile are thereby liable for direct infringement.

65. As discussed above, the '052 Accused Networks support LTE and, thus, operate in compliance with one or more of the LTE standards, including (for example) 3GPP TS 36.300 and 3GPP TS 36.321, which provide evidence of infringement. More specifically, the '052 Accused Networks perform or embody asserted claims by facilitating handover of a mobile station from a serving base station to a target base station using a non-contention random access preamble. The '052 Accused Networks include a mobile station, a serving base station, and a target base station (see, e.g., 3GPP TS 36.300 v8.12.0 § 10.1.2.1.1 (discussing handover of UE from Source eNB to Target eNB)); where the target base station is configured to allocate a random access identifier uniquely identifying the mobile station (see, e.g., 3GPP TS 36.300

v8.12.0 § 10.1.5.2 (discussing assignment of non-contention random access preamble to UE by eNB)), receive the allocated random access identifier from the mobile station (see, e.g., 3GPP TS 36.300 v8.12.0 § 10.1.5.2 (discussing receipt of non-contention random access preamble from UE by eNB)), and generate and transmit a feedback message comprising an adjustment (see, e.g., 3GPP TS 36.300 v8.12.0 § 10.1.5.2 (discussing transmission of random access response with timing alignment information from eNB to UE)); where the serving base station is configured to receive an indication of the allocated random access identifier from the target base station and transmit the allocated random access identifier to the mobile station (see, e.g., 3GPP TS 36.300 v8.12.0 §§ 10.1.2.1, 10.1.5.2 (describing handover command from target eNB to source eNB, which includes non-contention random access preamble and is sent by the source eNB to the UE)); and where the mobile station is configured to receive the indication of the random access identifier from the serving base station (see, e.g., 3GPP TS 36.300 v8.12.0 §§ 10.1.2.1, 10.1.5.2 (discussing signaling from source eNB to UE including non-contention random access preamble)), transmit the random access identifier to the target base station over the random access channel (see, e.g., 3GPP TS 36.300 v8.12.0 §§ 10.1.2.1, 10.1.5.2 (describing transmission of non-contention random access preamble to target eNB on RACH)), and synchronize the mobile station with the target base station using the adjustment (see, e.g., 3GPP TS 36.300 v8.12.0 § 5.2.7.3).

66. Additionally, Defendants Ericsson, Verizon, Sprint, and T-Mobile are liable for indirect infringement of the '052 Patent because they induce users of mobile devices that access '052 Accused Networks to make and use the systems of claims 10-14, 16-18, 20-22, and 24-25. Defendant Ericsson is also liable for indirect infringement of the '052 Patent because it induces direct infringement of the patent by its customers (including Defendants Verizon, Sprint, and/or T-Mobile) who practice the methods of claims 1 and 2-6.

67. On information and belief, Defendant Ericsson has had knowledge of the '052 Patent since its issuance, as a result of ongoing discussions with and litigation between Wi-LAN and Ericsson. Defendants Verizon, Sprint, and T-Mobile have had knowledge of the '052 Patent at least since filing and service of this complaint.

68. Since learning of the '052 Patent, Defendant Ericsson has known, has specifically intended, and continues to specifically intend for users of mobile devices that access '052 Accused Networks to use such devices in a manner that results in infringement of the '052 Patent. On information and belief, Defendant Ericsson, despite having knowledge of the '052 Patent, has provided, and continues to provide instructional materials and technical support that specifically enables and encourages configuration of Ericsson base station equipment to implement handover using a non-contention random access preamble, which (as discussed above) results in the implementation and use of systems and methods claimed by the '052 Patent. By providing such instruction and support, Defendant Ericsson knows (and has known), or should know (and should have known), that its actions have, and continue to, actively induce infringement.

69. Since learning of the '052 Patent, Defendants Verizon, Sprint, and T-Mobile have had knowledge of the '052 Patent, they have known, have specifically intended, and continued to specifically intend for users of mobile devices that access '052 Accused Networks to use such devices in a manner that results in infringement of the '052 Patent. Defendants Verizon, Sprint, and T-Mobile, despite having knowledge of the '052 Patent, have continued to configure Ericsson base station equipment to implement handover using a non-contention random access preamble, which (as discussed above) results in the implementation and use of systems claimed by the '052 Patent. By providing such instruction and support, Defendants Verizon, Sprint, and

T-Mobile know (and have known), or should know (and should have known), that their actions have, and continue to, actively induce infringement.

70. Despite having knowledge of the '052 Patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '052 Patent, Defendant Ericsson has nevertheless continued its infringing. Thus, Defendant Ericsson's infringing activities relative to the '052 Patent have been, and continue to be, willful, wanton, in malicious bad faith, deliberate, consciously wrongful or flagrant in disregard of Wi-LAN's rights.

71. Defendants Ericsson and Verizon test, make, use, offer for sale, and/or sell the '052 Accused Networks described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the deployment and support of Verizon's LTE network(s). Accordingly, Defendants Ericsson and Verizon are jointly, severally, or alternatively liable for infringements described in this Count.

72. Defendants Ericsson and Sprint test, make, use, offer for sale, and/or sell the '052 Accused Networks described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the deployment and support of Sprint's LTE network(s). Accordingly, Defendants Ericsson and Sprint are jointly, severally, or alternatively liable for infringements described in this Count.

73. Defendants Ericsson and T-Mobile test, make, use, offer for sale, and/or sell the '052 Accused Networks described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the deployment and support of T-Mobile's LTE network(s). Accordingly, Defendants Ericsson and T-Mobile are jointly, severally, or alternatively liable for infringements described in this Count.

74. Wi-LAN has been damaged as a result of Defendants' infringing conduct described in this Count. Defendants are, thus, liable to Wi-LAN in an amount that adequately

compensates it for Defendants' infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT V

(INFRINGEMENT OF U.S. PATENT NO. 9,380,607)

75. Wi-LAN incorporates paragraphs 1 through 18 herein by reference.

76. The '607 Patent, titled "Pre-allocated random access identifiers," is valid and enforceable, and was duly and legally issued by the United States Patent and Trademark Office on June 28, 2016 after full and fair examination. The inventors of the '607 Patent are Yair Bourlas, Adam Newham, Lei Wang, and Srikanth Gummadi. Wi-LAN, Inc. is the sole owner of the '607 Patent. Wi-LAN USA, Inc. holds certain exclusive rights under the '607 Patent, including an exclusive right to license Defendants. A copy of the '607 Patent is attached hereto as Exhibit E.

77. Defendants Ericsson, Verizon, Sprint, and T-Mobile have directly and/or indirectly infringed (by inducing infringement), and continue to directly and/or indirectly infringe (by inducing infringement), one or more claims of the '607 Patent in this judicial district and elsewhere in Texas and the United States without the consent or authorization of Wi-LAN, including, at least claims 1, 2, 8-9, 11, 14-17, 24-26, and 29, by making, having made, offering for sale or use, selling, and/or using LTE networks implemented using Ericsson base station equipment, including the Ericsson RBS 6000 series and the Ericsson Radio System series (the "'607 Accused Networks").

78. Defendants Ericsson, Verizon, Sprint, and T-Mobile directly infringe claims 16, 17, 24-26, and 29 of the '607 Patent by making, having made, offering for sale, selling, and/or using the '607 Accused Networks. Defendants Ericsson, Verizon, Sprint, and T-Mobile also directly infringe claims 1, 2, 8-9, 11, and 14-15 of the '607 Patent by making, having made,

offering for sale, selling, and/or using the '607 Accused Networks to practice the claimed methods. Defendants Ericsson, Verizon, Sprint, and T-Mobile are thereby liable for direct infringement.

79. As discussed above, the '607 Accused Networks support LTE and, thus, operate in compliance with one or more of the LTE standards, including (for example) 3GPP TS 36.300, 3GPP TS 36.321, 3GPP TS 36.331, and 3GPP TS 36.302, which provide evidence of infringement. More specifically, the '607 Accused Networks perform or embody asserted claims by facilitating handover of a mobile station from a serving base station to a target base station using a non-contention random access preamble. The '607 Accused Networks include a serving base station and a target base station operable to facilitate handover of a mobile station (see, e.g., 3GPP TS 36.300 v8.12.0 § 10.1.2.1.1 (discussing handover of UE from Source eNB to Target eNB)); where the serving base station is operable to transmit to the mobile station an indication of a first reserved set of access identifiers usable for non-contention access (see, e.g., 3GPP TS 36.300 v8.12.0 §§ 10.1.5.1, 10.1.5.2, 3GPP TS 36.331 v8.21.0 §§ 5.2.1.1, 6.3.1, 6.3.2 (disclosing information indicating a set of preambles for contention access is broadcast with system information and those random access preambles not within the set are for non-contention access)); where the target base station is operable to transmit an indication of a second reserved set of access identifiers usable for non-contention access (see, e.g., 3GPP TS 36.300 v8.12.0 §§ 10.1.5.1, 10.1.5.2, 3GPP TS 36.331 v8.21.0 §§ 5.2.1.1, 6.3.1, 6.3.2 (disclosing information indicating a set of preambles for contention access is broadcast with system information and those random access preambles not within the set are for non-contention access)), transmit, during handover of a mobile station, an indication of a non-contention reserved access identifier (see, e.g., 3GPP TS 36.300 v8.12.0 §§ 10.1.2.1, 10.1.5.2 (discussing assignment of non-contention random access preamble to UE by eNB)), receive the non-contention reserved access

identifier from the mobile station (see, e.g., 3GPP TS 36.300 v8.12.0 § 10.1.5.2 (discussing receipt of non-contention random access preamble from UE by eNB)), and transmit to the mobile station a feedback message comprising a timing adjustment (see, e.g., 3GPP TS 36.300 v8.12.0 § 10.1.5.2 (discussing transmission of random access response with timing alignment information from eNB to UE)); and where the mobile station is operable to adjust at least one operating parameter of a transmission to the target base station (see, e.g., 3GPP TS 36.300 v8.12.0 § 5.2.7.3, 3GPP TS 36.321 v8.9.0 § 5.2).

80. Additionally, Defendants Ericsson, Verizon, Sprint, and T-Mobile are liable for indirect infringement of the '607 Patent because they induce users of mobile devices that access '607 Accused Networks to make and use the systems of claims 16, 17, 24-26, and 29. Defendant Ericsson is also liable for indirect infringement of the '607 Patent because it induces direct infringement of the patent by its customers (including Defendants Verizon, Sprint, and/or T-Mobile) who practice the methods of claims 1, 2, 8-9, 11, and 14-15.

81. On information and belief, Defendant Ericsson has had knowledge of the '607 Patent since its issuance, as a result of ongoing discussions with and litigation between Wi-LAN and Ericsson. Defendants Verizon, Sprint, and T-Mobile have had knowledge of the '607 Patent at least since filing and service of this complaint.

82. Since learning of the '607 Patent, Defendant Ericsson has known, has specifically intended, and continues to specifically intend for users of mobile devices that access '607 Accused Networks to use such devices in a manner that results in infringement of the '607 Patent. On information and belief, Defendant Ericsson, despite having knowledge of the '607 Patent, has provided, and continues to provide instructional materials and technical support that specifically enables and encourages configuration of Ericsson base station equipment to implement handover using a non-contention random access preamble, which (as discussed

above) results in the implementation and use of systems and methods claimed by the '607 Patent. By providing such instruction and support, Defendant Ericsson knows (and has known), or should know (and should have known), that its actions have, and continue to, actively induce infringement.

83. Since learning of the '607 Patent, Defendants Verizon, Sprint, and T-Mobile have known, have specifically intended, and continued to specifically intend for users of mobile devices that access '607 Accused Networks to use such devices in a manner that results in infringement of the '607 Patent. Defendants Verizon, Sprint, and T-Mobile, despite having knowledge of the '607 Patent, have continued to configure Ericsson base station equipment to implement handover using a non-contention random access preamble, which (as discussed above) results in the implementation and use of systems claimed by the '607 Patent. By providing such instruction and support, Defendants Verizon, Sprint, and T-Mobile know (and have known), or should know (and should have known), that their actions have, and continue to, actively induce infringement.

84. Despite having knowledge of the '607 Patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '607 Patent, Defendant Ericsson has nevertheless continued its infringing conduct. Thus, Defendant Ericsson's infringing activities relative to the '607 Patent have been, and continue to be, willful, wanton, in malicious bad faith, deliberate, consciously wrongful or flagrant in disregard of Wi-LAN's rights.

85. Defendants Ericsson and Verizon test, make, use, offer for sale, and/or sell the '607 Accused Networks described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the deployment and support of Verizon's LTE network(s). Accordingly, Defendants Ericsson and Verizon are jointly, severally, or alternatively liable for infringements described in this Count.

86. Defendants Ericsson and Sprint test, make, use, offer for sale, and/or sell the '607 Accused Networks described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the deployment and support of Sprint's LTE network(s). Accordingly, Defendants Ericsson and Sprint are jointly, severally, or alternatively liable for infringements described in this Count.

87. Defendants Ericsson and T-Mobile test, make, use, offer for sale, and/or sell the '607 Accused Networks described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the deployment and support of T-Mobile's LTE network(s). Accordingly, Defendants Ericsson and T-Mobile are jointly, severally, or alternatively liable for infringements described in this Count.

88. Wi-LAN has been damaged as a result of Defendants' infringing conduct described in this Count. Defendants are, thus, liable to Wi-LAN in an amount that adequately compensates it for Defendants' infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

JOINDER OF PARTIES

89. Wi-LAN incorporates paragraphs 1 through 88 herein by reference.

90. On information and belief, Defendants AT&T, Verizon, Sprint, and T-Mobile have each purchased or otherwise acquired from Defendant Ericsson certain base stations that are the subject of Counts I through V (or some subset thereof). Moreover, on information and belief, Defendants AT&T, Verizon, Sprint, and T-Mobile have contracted with Defendant Ericsson to support their implementation and/or deployment of LTE networks. Thus, for these Counts, the right to relief against Defendants AT&T, Verizon, Sprint, and/or T-Mobile is asserted jointly and severally with Defendant Ericsson.

91. The alleged infringements set forth in Counts I through V arise out of the same transaction, occurrence, or series of transactions or occurrences relating to the testing, making, having made, using, offering for sale, selling, and/or importing of the Ericsson products made the subject of Counts I through V.

92. Questions of fact common to all Defendants will arise in this action including, for example, infringement by, or through use of, Ericsson base station devices.

93. Thus, joinder of Defendants Ericsson, AT&T, Verizon, Sprint, and T-Mobile is proper in this litigation pursuant to 35 U.S.C. § 299(a).

JURY DEMAND

Wi-LAN hereby requests a trial by jury pursuant to Rule 38 of the Federal Rules of Civil Procedure.

PRAYER FOR RELIEF

Wi-LAN requests that the Court find in its favor and against Defendants, and that the Court grant Wi-LAN the following relief:

- a. Judgment that one or more claims of the '061, '573, '572, '052, and '607 Patents have been infringed, either literally and/or under the doctrine of equivalents, by Defendants and/or by others whose infringements have been induced by Defendants;
- b. Judgment that Defendants account for and pay to Wi-LAN all damages to and costs incurred by Wi-LAN because of Defendants' infringing activities and other conduct complained of herein;
- c. Judgment that Defendants account for and pay to Wi-LAN a reasonable, ongoing, post-judgment royalty because of Defendants' infringing activities and other conduct complained of herein;
- d. That Defendant Ericsson's infringements relative to the '061, '573, '572, '052 and/or '607 Patent be found willful from the time that Defendant Ericsson became aware of the infringing nature of their products, and that the Court award treble damages for the period of such willful infringement pursuant to 35 U.S.C. § 284;
- e. That Wi-LAN be granted pre-judgment and post-judgment interest on the damages caused by Defendants' infringing activities and other conduct complained of herein; and

- f. That Wi-LAN be granted such other and further relief as the Court may deem just and proper under the circumstances.

Dated: March 7, 2017

Respectfully submitted,

/s/ Ed Nelson III w/permission by Andrea L. Fair

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