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

CELLULAR COMMUNICATIONS  EQUIPMENT LLC,  Plaintiff,  S  C.A. No. 2:15-cv-00579  JURY TRIAL DEMANDED	
S   Plaintiff,   S   C.A. No. 2:15-cv-00579	
Plaintiff, § C.A. No. 2:15-cv-00579	
§ JURY TRIAL DEMANDED	
v. §	
<b>§</b>	
SPRINT CORPORATION, §	
SPRINT SOLUTIONS, INC., §	
SPRINT SPECTRUM L.P., §	
V. \$ JURY TRIAL DEMANDED  V. \$ \$ SPRINT CORPORATION, \$ \$ SPRINT SOLUTIONS, INC., \$ \$ SPRINT SPECTRUM L.P., \$ \$ BOOST MOBILE, LLC, \$ \$ ALCATEL-LUCENT S.A., \$ \$ ALCATEL-LUCENT USA, INC., \$	
ALCATEL-LUCENT S.A., §	
ALCATEL-LUCENT USA, INC., §	
ERICSSON INC., §	
TELEFONAKTIEBOLAGET LM §	
ERICSSON, §	
ERICSSON INC.,  TELEFONAKTIEBOLAGET LM  ERICSSON,  APPLE INC.,  HTC CORPORATION,  HTC AMERICA, INC.,  \$	
HTC CORPORATION, §	
HTC AMERICA, INC., §	
LG ELECTRONICS, INC., §	
LG ELECTRONICS USA, INC., §	
SAMSUNG ELECTRONICS CO. LTD., §	
INC., §	
SAMSUNG TELECOMMUNICATIONS §	
AMERICA LLC, §	
ZTE CORPORATION, §	
ZTE USA INC., and §	
SAMSUNG ELECTRONICS AMERICA, § INC., § SAMSUNG TELECOMMUNICATIONS § AMERICA LLC, § ZTE CORPORATION, § ZTE USA INC., and § ZTE SOLUTIONS, INC., §	
\$ \$	
Defendants. §	

# PLAINTIFF'S THIRD AMENDED COMPLAINT FOR PATENT INFRINGEMENT

§

Plaintiff Cellular Communications Equipment LLC ("CCE") files this Third Amended Complaint against Sprint Solutions, Inc., Sprint Spectrum L.P., Boost Mobile, LLC, Alcatel-Lucent USA, Inc., Ericsson Inc., Telefonaktiebolaget LM Ericsson, Apple Inc., HTC

Corporation, HTC America, Inc., and ZTE USA Inc. (collectively, the "Defendants") for infringement of U.S. Patent No. 8,457,022 ("the '022 patent"), U.S. Patent No. 8,570,957 ("the '957 patent"), U.S. Patent No. 8,867,472 ("the '472 patent"), U.S. Patent No. 8,457,676 ("the '676 patent"), U.S. Patent No. 9,025,590 ("the '590 patent"), and U.S. Patent No. 9,078,262 ("the '262 patent").

# **INTRODUCTION**

Sprint proclaims that is building America's newest network from the ground up with a goal to reach speeds formerly thought impossible. Sprint competes intensely with other national carriers to win subscribers and requires advanced LTE capabilities and features to do so. Sprint boasts that it offers the best value in wireless with its unlimited data plans that other national carriers can't compete with. (*See http://faster.sprint.com/2014/04/29/sprint-spark-reaches-even-further/*, <a href="http://www.sprint.com/landings/datashare/index.html">http://www.sprint.com/landings/datashare/index.html</a>, as of April 30, 2015.) The technology of the CCE patents asserted in this Complaint underlies critical features of Sprint's LTE network and allows Sprint to make most efficient use of its extremely valuable wireless spectrum. This is necessary to compete for customers in a highly competitive market and support as many users as possible while offering them the best possible LTE cellular experience. Sprint's ability to do so is a direct result of Sprint's infringement of the CCE patents.

Sprint relies upon its suppliers of mobile devices and network equipment, such as those named as defendants in this Complaint, to provide the LTE user equipment and base stations that are specifically designed by Sprint and its suppliers to operate as efficiently as possible using various features of the LTE wireless standards. In providing, testing, and/or operating the hardware that Sprint utilizes or sells to customers to offer 4G LTE cellular communications, each

of its suppliers, including Alcatel-Lucent, Ericsson, Apple, HTC, and ZTE, also infringe the CCE patents that are the subject of this Complaint.

### THE PARTIES

- 1. Cellular Communications Equipment LLC is a Texas limited liability company with its principal place of business in Plano, Texas.
- 2. 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.
- 3. 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.
- 4. Boost Mobile, LLC (with Sprint Solutions, Inc. and Sprint Spectrum L.P., collectively "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, 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.
- 5. Alcatel-Lucent USA, Inc. ("Alcatel") is a Delaware corporation with its principal place of business in Murray Hill, New Jersey. This Defendant may be served with process through its agent, Prentice Hall Corporation System, 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.

- 6. Ericsson Inc. is a Delaware corporation with its headquarters and principal place of business in Plano, Texas. This Defendant may be served with process through its agent, Capitol Corporate Services, Inc., 800 Brazos, Suite 400, Austin, Texas 78701. This Defendant does business in the State of Texas and in the Eastern District of Texas.
- 7. Telefonaktiebolaget LM Ericsson (with Ericsson Inc., collectively "Ericsson") is a company organized under the laws of Sweden with its principal place of business in Stockholm, Sweden. On information and belief, this Defendant may be served with process at its principal place of business at Torshamnsgatan 21, Kista, 164 83 Stockholm, Sweden. This Defendant does business in the State of Texas and in the Eastern District of Texas.
- 8. Apple Inc. ("Apple") is a California corporation with its principal place of business in Cupertino, California. This Defendant may be served with process through its agent in Texas, CT Corporation System, 1999 Bryan Street, Ste. 900; Dallas, TX 75201-3136. This Defendant does business in the State of Texas and in the Eastern District of Texas.
- 9. HTC Corporation is incorporated under the laws of Taiwan with its principal place of business at 23 Xinghau Road, Taoyuan City, Taoyuan 330, Taiwan, R.O.C. On information and belief, this Defendant may be served with process at its principal place of business at 23 Xinghau Road, Taoyuan City, Taoyuan 330, Taiwan, R.O.C. This Defendant does business in the State of Texas and in the Eastern District of Texas.
- 10. HTC America, Inc. (with HTC Corporation, collectively "HTC") is a Washington corporation with its principal place of business at 13920 SE Eastgate Way, Suite 400, Bellevue, Washington 98005. This Defendant may be served with process through its agent

in Texas, National Registered Agents, Inc., 1999 Bryan St., Ste. 900, Dallas, TX 75201-3136. This Defendant does business in the State of Texas and in the Eastern District of Texas.

11. ZTE USA Inc. ("ZTE") is a New Jersey corporation with its principal place of business in Richardson, Texas. This Defendant may be served with process through its agent, Jing Li, 2425 N Central Expy Suite 323, Richardson, TX 75080. This Defendant does business in the State of Texas and in the Eastern District of Texas.

# **JURISDICTION AND VENUE**

- 12. This action arises under the patent laws of the United States, namely 35 U.S.C. §§ 271, 281, and 284-285, among others.
- 13. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a), and 1367.
- 14. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391(b) and (c), and 1400(b). On information and belief, 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 established places of business in this judicial district.
- 15. On information and belief, 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: (A) at least part of their infringing activities alleged herein; and (B) regularly doing or soliciting business, engaging in other persistent conduct, and/or deriving substantial revenue from goods sold and services provided to Texas residents.

- 16. On information and belief, Defendants have significant ties to, and presence in, the State of Texas and the Eastern District of Texas, making venue in this judicial district both proper and convenient for this action. Sprint maintains offices in Irving, Texas and Houston, Texas. Additionally, Sprint operates retail stores throughout Texas, including at least thirty store locations in the Eastern District of Texas (Tyler (2), Jacksonville, Athens, Canton, Longview, Gun Barrel City, Beaumont, Port Arthur, Groves, Lufkin (2), Nacogdoches, Livingston, Frisco (3), The Colony, Plano (6), Allen (2), McKinney, Murphy, Flower Mound, and Sherman).
  - 17. Alcatel-Lucent USA maintains an office in San Antonio, Texas.
- 18. Ericsson, Inc. maintains an office in Plano, Texas, within this District, and operates a training lab facility in Richardson, Texas. Telefonaktiebolaget LM Ericsson maintains its North American Regional headquarters in Plano, Texas, within this District, and operates a training lab facility in Richardson, Texas.
- 19. Apple, Inc. maintains its Americas Operation Center in Austin, Texas and also operates a microchip design center in Austin, Texas. Apple, Inc. also operates eighteen retail stores in Texas, including one in Plano, Texas and one in Frisco, Texas, both within the Eastern District of Texas.
  - 20. HTC America, Inc. maintains an office in Houston, Texas.
  - 21. ZTE USA, Inc. maintains its headquarters in Richardson, Texas.
- 22. Further, Plaintiff CCE is a limited liability company located in Plano, Texas, in the Eastern District of Texas. CCE is controlled by Acacia Research Group LLC, which maintains its principal place of business in Plano, Texas. CCE's business includes the acquisition and licensing of intellectual property. Additionally, CCE's relevant documents are available in its offices in Plano, Texas.

#### **COUNT I**

(INFRINGEMENT OF U.S. PATENT NO. 8,457,022)

- 23. CCE incorporates paragraphs 1 through 22 herein by reference.
- 24. CCE is the assignee of the '022 patent, entitled "Method and Apparatus for Providing Signaling of Redundancy Versions," with ownership of all substantial rights in the '022 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements. A true and correct copy of the '022 patent is attached as Exhibit A.
- 25. The '022 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '022 patent issued from U.S. Patent Application No. 12/564,536 (the "'536 Application").
- Defendants Sprint, Alcatel, Ericsson, Apple, HTC and ZTE have and continue to directly and/or indirectly infringe (by inducing infringement and/or contributing to infringement) one or more claims of the '022 patent in this judicial district and elsewhere in Texas and the United States without the consent or authorization of CCE, by or through their making, having made, offering for sale, selling, importing, and/or using user equipment for Sprint's LTE network—including equipment supplied by Apple, HTC and ZTE—and Sprint's base station equipment—including equipment supplied by Alcatel and Ericsson—including, for example: the Apple iPhone 5, Apple iPhone 5c, Apple iPhone 5s, Apple iPhone 6, Apple iPhone 6 Plus, Apple iPad Air, Apple iPad Air 2, Apple iPad Mini, Apple iPad mini 2 32GB, Apple iPad Mini 3, Apple iPad Mini with Retina Display, Apple iPad with Retina Display (iPad 4), Apple iPad 3, Apple iPhone 6s, Apple iPhone 6s Plus, Apple iPad mini 4, Apple iPad Pro, HTC 8XT, HTC Desire 510, HTC Evo 4G, HTC One, HTC One (E8), HTC One (M7), HTC One (M8), HTC One (M8) Windows, HTC One (M8) Harman Kardon Edition, HTC One M9, HTC One

Max, HTC One A9, ZTE Sprint Flash, ZTE Sprint Force, and ZTE Sprint Vital (N9810), compatible with the Sprint LTE cellular network and made, used, sold, offered for sale, imported or otherwise distributed by or through Sprint and/or its suppliers for use on Sprint's LTE network (the "Sprint User Equipment"); and the Alcatel-Lucent 9768, Alcatel-Lucent 9100 Multi-Standard Base Station, Alcatel-Lucent 9412 eNodeB Compact, Alcatel-Lucent lightRadio 9711, Alcatel-Lucent lightRadio 9712, Alcatel-Lucent 9768, Alcatel-Lucent Evercore LTE 400 PMR, Alcatel-Lucent Multi-Carrier Remote Radio Head, and Ericsson RBS 6000 series, compatible with the Sprint LTE cellular network and made, used, sold, offered for sale, imported, and/or operated by or through Sprint and/or its suppliers for use in Sprint's LTE network (the "Sprint Base Stations"). These devices are collectively referred to as the "Sprint LTE User Equipment and Network Equipment."

- 27. Defendants directly infringe the apparatus claims of the '022 patent by making, using, offering to sell, selling, and/or importing the Sprint LTE User Equipment and Network Equipment. Defendants also directly infringe the '022 patent by making, using, selling, offering for sale, and/or importing the Sprint LTE User Equipment and Network Equipment to practice the claimed methods. Defendants are thereby liable for direct infringement.
- On information and belief, each Defendant, or an affiliated entity, is a 3rd Generation Partnership Project (or "3GPP") member organization, or is affiliated with a 3GPP member organization. 3GPP solicits identification of standard essential patents, and, through 3GPP, Defendants received actual notice of the standard essential patents at issue here. The '022 patent is one such patent, and Defendants have known of the '022 patent; the '536 Application; and/or the fact that the '022 patent's disclosure would be the subject of patent protection at least as early as December 2012, when it was disclosed to 3GPP via the

European Telecommunications Standards Institute ("ETSI," an organizational member of 3GPP). Alternatively, each Defendant has had knowledge of the '022 patent, at least as early as service of the First Amended Complaint in this action. *See, e.g., Patent Harbor, LLC v. Dreamworks Animation SKG, Inc.*, No. 6:11-cv-229, 2012 U.S. Dist. LEXIS 114199, at \*17 (E.D. Tex. Jul. 27, 2012).

- Additionally, Defendants are liable for indirect infringement of the '022 patent 29. because they induce and/or contribute to the direct infringement of the patent by their customers (including Sprint by its suppliers) and other end users who use the Sprint LTE User Equipment and Network Equipment to practice the claimed methods. On information and belief, as set forth above, Defendants had knowledge of the '022 patent; the '536 Application; and/or the fact that the '022 patent's disclosure would be the subject of patent protection at least as early as December 2012. And since that time, Defendants have specifically intended and continue to specifically intend for persons who acquire and use the Sprint LTE User Equipment and Network Equipment, including Defendants' customers (e.g., mobile device users, Sprint, etc.), to use such devices in a manner that infringes the '022 patent. In the alternative, Defendants have had knowledge of the '022 patent, at least as early as service of the First Amended Complaint in this action. And since that time, Defendants have specifically intended and continue to specifically intend for persons who acquire and use the Sprint LTE User Equipment and Network Equipment, including Defendants' customers (e.g., mobile device users, Sprint, etc.), to use such devices in a manner that infringes the '022 patent.
- 30. Despite having knowledge of the '022 patent, Defendants named in this Count have specifically intended and continue to specifically intend for persons who acquire and use the Sprint LTE User Equipment and Network Equipment, including Defendants'

customers (e.g., mobile device users, Sprint, etc.), to use such devices in a manner that infringes one or more claims of the '022 patent. This is evident when Defendants encourage and instruct customers and other end users in the use and operation of the Sprint LTE User Equipment and Network Equipment via advertisement and instructional materials.

- 31. In particular, despite having knowledge of the '022 patent, Defendants have provided, and continue to provide, instructional materials, such as user guides, owner manuals, and similar online (available for resources example, via http://support.sprint.com/support/devicepage, http://support.apple.com/manuals/, http://www.htc.com/us/support/, http://www.zteusa.com/support page, and other instructional materials and documentation provided or made available by Defendants to customers after purchase) that specifically teach the customers and other end users to use the Sprint LTE User Equipment and Network Equipment in an infringing manner. By providing such instructions, Defendants know (and have known), or should know (and should have known), that their actions have, and continue to, actively induce infringement.
- 32. Additionally, Defendants named in this Count know, and have known, that the Sprint LTE User Equipment and Network Equipment include proprietary hardware components and software instructions that work in concert to perform specific, intended functions. Such specific, intended functions, carried out by these hardware and software combinations, are a material part of the inventions of the '022 patent and are not staple articles of commerce suitable for substantial non-infringing use.
- 33. Specifically, each of the Sprint User Equipment contains at least a baseband processor implementing, in combination with software instructions, functionality that is specifically programmed and/or configured to detect start of a system information message

transmission window and to assign a redundancy version sequence at the start of the transmission window as claimed in the '022 patent. Upon information and belief, the Sprint User Equipment contains discrete code that uniquely provides this functionality. The code, which is configured to control the baseband processor and other components for performing these functions, is a material part of the inventions of the '022 patent and there is no substantial non-infringing use

for this combination of hardware and software components.

- 34. Specifically, each of the Sprint Base Stations contains at least a baseband processor implementing, in combination with software instructions, functionality that is specifically programmed and/or configured to detect start of a system information message transmission window and to assign a redundancy version sequence at the start of the transmission window as claimed in the '022 patent. Upon information and belief, the Sprint Base Stations contain discrete code that uniquely provides this functionality. This code, which is configured to control the baseband processor and other components for performing these functions are a material part of the inventions of the '022 patent and there is no substantial non-infringing use for this combination of hardware and software component.
- 35. On information and belief, despite having knowledge of the '022 patent and knowledge that they are directly and/or indirectly infringing one or more claims of the '022 patent, Defendants named in this Count have nevertheless continued their infringing conduct and disregarded an objectively high likelihood of infringement; thus, Defendants' infringing activities relative to the '022 patent have been, and continue to be, willful, wanton, and deliberate in disregard of CCE's rights.
- 36. On information and belief, Sprint along with its suppliers, Alcatel, Ericsson, Apple, HTC, and ZTE, test, make, use, offer for sale, sell, and/or import the Sprint LTE User

Equipment and Network Equipment described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution, sale, and operation of such devices. Accordingly, Sprint, Alcatel, Ericsson, Apple, HTC, and ZTE are jointly, severally, or alternatively liable for infringements described in this Count.

37. CCE has been damaged as a result of Defendants' infringing conduct described in this Count. Defendants are, thus, liable to CCE in an amount that adequately compensates CCE 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. 8,570,957)

- 38. CCE incorporates paragraphs 1 through 22 herein by reference.
- 39. CCE is the assignee of the '957 patent, entitled "Extension of Power Headroom Reporting and Trigger Conditions," with ownership of all substantial rights in the '957 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements. A true and correct copy of the '957 patent is attached as Exhibit B.
- 40. The '957 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '957 patent issued from U.S. Patent Application No. 12/382,920 (the "'920 Application").
- 41. Defendants Sprint, Alcatel, Ericsson, Apple, HTC, and ZTE have and continue to directly and/or indirectly infringe (by inducing infringement and/or contributing to infringement) one or more claims of the '957 patent in this judicial district and elsewhere in Texas and the United States without the consent or authorization of CCE, by or through their

making, having made, offering for sale, selling, importing, and/or using user equipment for Sprint's LTE network—including equipment supplied by Apple, HTC, and ZTE—and Sprint's base station equipment—including equipment supplied by Alcatel and Ericsson—including, for example: the Apple iPhone 5, Apple iPhone 5c, Apple iPhone 5s, Apple iPhone 6, Apple iPhone 6 Plus, Apple iPad Air, Apple iPad Air 2, Apple iPad Mini, Apple iPad mini 2 32GB, Apple iPad Mini 3, Apple iPad Mini with Retina Display, Apple iPad with Retina Display (iPad 4), Apple iPad 3, Apple iPhone 6s, Apple iPhone 6s Plus, Apple iPad mini 4, Apple iPad Pro, HTC 8XT, HTC Desire 510, HTC Evo 4G, HTC One, HTC One (E8), HTC One (M7), HTC One (M8), HTC One (M8) Windows, HTC One (M8) Harman Kardon Edition, HTC One M9, HTC One Max, HTC One A9, ZTE Sprint Flash, ZTE Sprint Force, and ZTE Sprint Vital (N9810), compatible with the Sprint LTE cellular network and made, used, sold, offered for sale, imported or otherwise distributed by or through Sprint and/or its suppliers for use on Sprint's LTE network (the "Sprint User Equipment"); and the Alcatel-Lucent 9768, Alcatel-Lucent 9100 Multi-Standard Base Station, Alcatel-Lucent 9412 eNodeB Compact, Alcatel-Lucent lightRadio 9711, Alcatel-Lucent lightRadio 9712, Alcatel-Lucent 9768, Alcatel-Lucent Evercore LTE 400 PMR, Alcatel-Lucent Multi-Carrier Remote Radio Head, and Ericsson RBS 6000 series, compatible with the Sprint LTE cellular network and made, used, sold, offered for sale, imported, and/or operated by or through Sprint and/or its suppliers for use in Sprint's LTE network (the "Sprint Base Stations"). These devices are collectively referred to as the "Sprint LTE User Equipment and Network Equipment."

42. Defendants directly infringe the apparatus claims of the '957 patent by making, using, offering to sell, selling, and/or importing the Sprint LTE User Equipment and Network Equipment. Defendants also directly infringe the '957 patent by making, using, selling, offering

for sale, and/or importing the Sprint LTE User Equipment and Network Equipment to practice the claimed methods. Defendants are thereby liable for direct infringement.

- Generation Partnership Project (or "3GPP") member organization, or is affiliated with a 3GPP member organization. 3GPP solicits identification of standard essential patents, and, through 3GPP, Defendants received actual notice of the standard essential patents at issue here. The '957 patent is one such patent, and Defendants have known of the '957 patent; the '920 Application; and/or the fact that the '957 patent's disclosure would be the subject of patent protection at least as early as August 2010, when it was disclosed to 3GPP via the European Telecommunications Standards Institute ("ETSI," an organizational member of 3GPP). Alternatively, each Defendant has had knowledge of the '957 patent, at least as early as service of the First Amended Complaint in this action. *See, e.g., Patent Harbor, LLC v. Dreamworks Animation SKG, Inc.*, No. 6:11-cv-229, 2012 U.S. Dist. LEXIS 114199, at \*17 (E.D. Tex. Jul. 27, 2012).
- 44. Additionally, Defendants are liable for indirect infringement of the '957 patent because they induce and/or contribute to the direct infringement of the patent by their customers (including Sprint by its suppliers) and other end users who use the Sprint LTE User Equipment and Network Equipment to practice the claimed methods. On information and belief, as set forth above, Defendants had knowledge of the '957 patent; the '920 Application; and/or the fact that the '957 patent's disclosure would be the subject of patent protection at least as early as August 2010. And since that time, Defendants have specifically intended and continue to specifically intended for persons who acquire and use the Sprint LTE User Equipment and Network Equipment, including Defendants' customers (e.g., mobile device users, Sprint, etc.), to use such

devices in a manner that infringes the '957 patent. In the alternative, Defendants have had knowledge of the '957 patent, at least as early as service of the First Amended Complaint in this action. And since that time, Defendants have specifically intended and continue to specifically intend for persons who acquire and use the Sprint LTE User Equipment and Network Equipment, including Defendants' customers (e.g., mobile device users, Sprint, etc.), to use such devices in a manner that infringes the '957 patent.

- 45. Despite having knowledge of the '957 patent, Defendants named in this Count have specifically intended and continue to specifically intend for persons who acquire and use the Sprint LTE User Equipment and Network Equipment, including Defendants' customers (e.g., mobile device users, Sprint, etc.), to use such devices in a manner that infringes one or more claims of the '957 patent. This is evident when Defendants encourage and instruct customers and other end users in the use and operation of the Sprint LTE User Equipment and Network Equipment via advertisement and instructional materials.
- 46. In particular, despite having knowledge of the '957 patent, Defendants have provided, and continue to provide, instructional materials, such as user guides, owner manuals, online and similar (available via resources for example, http://support.sprint.com/support/devicepage. http://support.apple.com/manuals/, http://www.htc.com/us/support/, http://www.zteusa.com/support page, and other instructional materials and documentation provided or made available by Defendants to customers after purchase) that specifically teach the customers and other end users to use the Sprint LTE User Equipment and Network Equipment in an infringing manner. By providing such instructions, Defendants know (and have known), or should know (and should have known), that their actions have, and continue to, actively induce infringement.

47. Additionally, Defendants named in this Count know, and have known, that the

Sprint LTE User Equipment and Network Equipment include proprietary hardware components

and software instructions that work in concert to perform specific, intended functions. Such

specific, intended functions, carried out by these hardware and software combinations, are a

material part of the inventions of the '957 patent and are not staple articles of commerce suitable

for substantial non-infringing use.

48. Specifically, each of the Sprint User Equipment contains at least a transceiver

and a baseband processor implementing, in combination with software instructions, functionality

that is specifically programmed and/or configured to determine and transmit a power headroom

report with both positive and negative values of power headroom as claimed in the '957 patent.

Upon information and belief, the Sprint User Equipment contains discrete code that uniquely

provides this functionality. The code, which is configured to control the baseband processor,

transceiver, and other components for performing these functions, is a material part of the

inventions of the '957 patent and there is no substantial non-infringing use for this combination

of hardware and software components.

49. Specifically, each of the Sprint Base Stations contains at least a transceiver and

a baseband processor implementing, in combination with software instructions, functionality that

is specifically programmed and/or configured to receive a power headroom report with both

positive and negative values of power headroom and allocate radio network resources based on

the power headroom report, as claimed in the '957 patent. Upon information and belief, the

Sprint Base Stations contain discrete code that uniquely provides this functionality. The code,

which is configured to control the baseband processor, transceiver, and other components for

performing these functions, is a material part of the inventions of the '957 patent and there is no substantial non-infringing use for this combination of hardware and software components.

- 50. On information and belief, despite having knowledge of the '957 patent and knowledge that they are directly and/or indirectly infringing one or more claims of the '957 patent, Defendants named in this Count have nevertheless continued their infringing conduct and disregarded an objectively high likelihood of infringement; thus, Defendants' infringing activities relative to the '957 patent have been, and continue to be, willful, wanton, and deliberate in disregard of CCE's rights.
- 51. On information and belief, Sprint along with its suppliers, Alcatel, Ericsson, Apple, HTC, and ZTE, test, make, use, offer for sale, sell, and/or import the Sprint LTE User Equipment and Network Equipment described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution, sale, and operation of such devices. Accordingly, Sprint, Alcatel, Ericsson, Apple, HTC, and ZTE are jointly, severally, or alternatively liable for infringements described in this Count.
- 52. CCE has been damaged as a result of Defendants' infringing conduct described in this Count. Defendants are, thus, liable to CCE in an amount that adequately compensates CCE 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. 8,867,472)

- 53. CCE incorporates paragraphs 1 through 22 herein by reference.
- 54. CCE is the assignee of the '472 patent, entitled "Signalling of Channel Information," with ownership of all substantial rights in the '472 patent, including the

right to exclude others and to enforce, sue, and recover damages for past and future infringements. A true and correct copy of the '472 patent is attached as Exhibit C.

- 55. The '472 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '472 patent issued from U.S. Patent Application No. 13/637,222, which claims priority to PCT/EP2010/053919 (with U.S. Patent Application No. 13/637,222 the "'222 Application").
- 56. Defendants Sprint, Alcatel, Ericsson, Apple, HTC, and ZTE have and continue to directly and/or indirectly infringe (by inducing infringement and/or contributing to infringement) one or more claims of the '472 patent in this judicial district and elsewhere in Texas and the United States without the consent or authorization of CCE, by or through their making, having made, offering for sale, selling, importing, and/or using user equipment for Sprint's LTE network—including equipment supplied by Apple, HTC, and ZTE—and Sprint's base station equipment—including equipment supplied by Alcatel and Ericsson—including, for example: the Apple iPhone 5, Apple iPhone 5c, Apple iPhone 5s, Apple iPhone 6, Apple iPhone 6 Plus, Apple iPad Air, Apple iPad Air 2, Apple iPad Mini, Apple iPad mini 2 32GB, Apple iPad Mini 3, Apple iPad Mini with Retina Display, Apple iPad with Retina Display (iPad 4), Apple iPad 3, Apple iPhone 6s, Apple iPhone 6s Plus, Apple iPad mini 4, Apple iPad Pro, HTC 8XT, HTC Desire 510, HTC Evo 4G, HTC One, HTC One (E8), HTC One (M7), HTC One (M8), HTC One (M8) Windows, HTC One (M8) Harman Kardon Edition, HTC One M9, HTC One Max, HTC One A9, ZTE Sprint Flash, ZTE Sprint Force, and ZTE Sprint Vital (N9810), compatible with the Sprint LTE cellular network and made, used, sold, offered for sale, imported or otherwise distributed by or through Sprint and/or its suppliers for use on Sprint's LTE network (the "Sprint User Equipment"); and the Alcatel-Lucent 9768, Alcatel-Lucent 9100

Multi-Standard Base Station, Alcatel-Lucent 9412 eNodeB Compact, Alcatel-Lucent lightRadio 9711, Alcatel-Lucent lightRadio 9712, Alcatel-Lucent 9768, Alcatel-Lucent Evercore LTE 400 PMR, Alcatel-Lucent Multi-Carrier Remote Radio Head, and Ericsson RBS 6000 series, compatible with the Sprint LTE cellular network and made, used, sold, offered for sale, imported, and/or operated by or through Sprint and/or its suppliers for use in Sprint's LTE network (the "Sprint Base Stations"). These devices are collectively referred to as the "Sprint LTE User Equipment and Network Equipment."

- 57. Defendants directly infringe the apparatus claims of the '472 patent by making, using, offering to sell, selling, and/or importing the Sprint LTE User Equipment and Network Equipment. Defendants also directly infringe the '472 patent by making, using, selling, offering for sale, and/or importing the Sprint LTE User Equipment and Network Equipment to practice the claimed methods. Defendants are thereby liable for direct infringement.
- 58. On information and belief, each Defendant, or an affiliated entity, is a 3rd Generation Partnership Project (or "3GPP") member organization, or is affiliated with a 3GPP member organization. 3GPP solicits identification of standard essential patents, and, through 3GPP, the Defendants received actual notice of the standard essential patents at issue here. The '472 patent is one such patent, and the Defendants have known of the '472 patent; the '222 Application; and/or the fact that the '472 patent's disclosure would be the subject of patent protection at least as early as at least as early as March 2013, when it was disclosed to 3GPP via the European Telecommunications Standards Institute ("ETSI," an organizational member of 3GPP). Alternatively, each Defendant has had knowledge of the '472 patent, at least as early as service of the First Amended Complaint in this action. *See, e.g., Patent Harbor, LLC*

v. Dreamworks Animation SKG, Inc., No. 6:11-cv-229, 2012 U.S. Dist. LEXIS 114199, at \*17 (E.D. Tex. Jul. 27, 2012).

- 59. Additionally, Defendants are liable for indirect infringement of the '472 patent because they induce and/or contribute to the direct infringement of the patent by their customers (including Sprint by its suppliers) and other end users who use the Sprint LTE User Equipment and Network Equipment to practice the claimed methods. On information and belief, as set forth above, Defendants had knowledge of the '472 patent; the '222 Application; and/or the fact that the '472 patent's disclosure would be the subject of patent protection at least as early as March 2013. And since that time, Defendants have specifically intended and continue to specifically intend for persons who acquire and use the Sprint LTE User Equipment and Network Equipment, including Defendants' customers (e.g., mobile device users, Sprint, etc.), to use such devices in a manner that infringes the '472 patent. In the alternative, Defendants have had knowledge of the '472 patent, at least as early as service of the First Amended Complaint in this action. And since that time, Defendants have specifically intended and continue to specifically intend for persons who acquire and use the Sprint LTE User Equipment and Network Equipment, including Defendants' customers (e.g., mobile device users, Sprint, etc.), to use such devices in a manner that infringes the '472 patent.
- 60. Despite having knowledge of the '472 patent, Defendants named in this Count have specifically intended and continue to specifically intend for persons who acquire and use the Sprint LTE User Equipment and Network Equipment, including Defendants' customers (e.g., mobile device users, Sprint, etc.), to use such devices in a manner that infringes one or more claims of the '472 patent. This is evident when Defendants encourage and instruct

customers and other end users in the use and operation of the Sprint LTE User Equipment and Network Equipment via advertisement and instructional materials.

- 61. In particular, despite having knowledge of the '472 patent, Defendants have provided, and continue to provide, instructional materials, such as user guides, owner manuals, (available and similar online for resources example, via http://support.sprint.com/support/devicepage, http://support.apple.com/manuals/, http://www.htc.com/us/support/, http://www.zteusa.com/support page, and other instructional materials and documentation provided or made available by Defendants to customers after purchase) that specifically teach the customers and other end users to use the Sprint LTE User Equipment and Network Equipment in an infringing manner. By providing such instructions, Defendants know (and have known), or should know (and should have known), that their actions have, and continue to, actively induce infringement.
- 62. Additionally, Defendants named in this Count know, and have known, that the Sprint LTE User Equipment and Network Equipment include proprietary hardware components and software instructions that work in concert to perform specific, intended functions. Such specific, intended functions, carried out by these hardware and software combinations, are a material part of the inventions of the '472 patent and are not staple articles of commerce suitable for substantial non-infringing use.
- 63. Specifically, each of the Sprint User Equipment contains at least a transceiver and a baseband processor implementing, in combination with software instructions, functionality that is specifically programmed and/or configured to receive a request for providing aperiodic channel information, determine and send the channel information for the selected downlink component carrier, as claimed in the '472 patent. Upon information and belief, the Sprint User

Equipment contains discrete code that uniquely provides this functionality. The code, which is configured to control the baseband processor, transceiver, and other components for performing these functions, is a material part of the inventions of the '472 patent and there is no substantial non-infringing use for this combination of hardware and software components.

- 64. Specifically, each of the Sprint Base Stations contains at least a transceiver and a baseband processor implementing, in combination with software instructions, functionality that is specifically programmed and/or configured to generate and send a request for providing aperiodic channel information for a selected downlink component carrier, as claimed in the '472 patent. Upon information and belief, the Sprint Base Stations contain discrete code that uniquely provides this functionality. The code, which is configured to control the baseband processor, transceiver, and other components for performing these functions, is a material part of the inventions of the '472 patent and there is no substantial non-infringing use for this combination of hardware and software components.
- 65. On information and belief, despite having knowledge of the '472 patent and knowledge that they are directly and/or indirectly infringing one or more claims of the '472 patent, Defendants named in this Count have nevertheless continued their infringing conduct and disregarded an objectively high likelihood of infringement; thus, Defendants' infringing activities relative to the '472 patent have been, and continue to be, willful, wanton, and deliberate in disregard of CCE's rights.
- 66. On information and belief, Sprint along with its suppliers, Alcatel, Ericsson, Apple, HTC, and ZTE, test, make, use, offer for sale, sell, and/or import the Sprint LTE User Equipment and Network Equipment described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution, sale, and operation of such

devices. Accordingly, Sprint, Alcatel, Ericsson, Apple, HTC, and ZTE are jointly, severally, or alternatively liable for infringements described in this Count.

67. CCE has been damaged as a result of Defendants' infringing conduct described in this Count. Defendants are, thus, liable to CCE in an amount that adequately compensates CCE 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. 8,457,676)

- 68. CCE incorporates paragraphs 1 through 22 herein by reference.
- 69. CCE is the assignee of the '676 patent, entitled "Power Headroom Reporting Method," with ownership of all substantial rights in the '676 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements. A true and correct copy of the '676 patent is attached as Exhibit D.
- 70. The '676 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '676 patent issued from U.S. Patent Application No. 12/665,427, which claims priority to PCT/FI2008/050384 (with U.S. Patent Application No. 13/637,222 the "'427 Application").
- 71. Defendants Sprint, Alcatel, Apple, HTC, and ZTE ("the '676 Defendants") have and continue to directly and/or indirectly infringe (by inducing infringement and/or contributing to infringement) one or more claims of the '676 patent in this judicial district and elsewhere in Texas and the United States without the consent or authorization of CCE, by or through their making, having made, offering for sale, selling, importing, and/or using user equipment for Sprint's LTE network—including equipment supplied by Apple, HTC, and ZTE—

and Sprint's base station equipment—including equipment supplied by Alcatel—including, for example: the Apple iPhone 5, Apple iPhone 5c, Apple iPhone 5s, Apple iPhone 6, Apple iPhone 6 Plus, Apple iPad Air, Apple iPad Air 2, Apple iPad Mini, Apple iPad mini 2 32GB, Apple iPad Mini 3. Apple iPad Mini with Retina Display, Apple iPad with Retina Display (iPad 4), Apple iPad 3, Apple iPhone 6s, Apple iPhone 6s Plus, Apple iPad mini 4, Apple iPad Pro, HTC 8XT, HTC Desire 510, HTC Evo 4G, HTC One, HTC One (E8), HTC One (M7), HTC One (M8), HTC One (M8) Windows, HTC One (M8) Harman Kardon Edition, HTC One M9, HTC One Max, HTC One A9, ZTE Sprint Flash, ZTE Sprint Force, and ZTE Sprint Vital (N9810), compatible with the Sprint LTE cellular network and made, used, sold, offered for sale, imported or otherwise distributed by or through Sprint and/or its suppliers for use on Sprint's LTE network (the "Sprint User Equipment"); and the Alcatel-Lucent 9768, Alcatel-Lucent 9100 Multi-Standard Base Station, Alcatel-Lucent 9412 eNodeB Compact, Alcatel-Lucent lightRadio 9711, Alcatel-Lucent lightRadio 9712, Alcatel-Lucent 9768, Alcatel-Lucent Evercore LTE 400 PMR, and Alcatel-Lucent Multi-Carrier Remote Radio Head, compatible with the Sprint LTE cellular network and made, used, sold, offered for sale, imported, and/or operated by or through Sprint and/or its suppliers for use in Sprint's LTE network (the "Sprint '676 Base Stations"). These devices are collectively referred to as the "Sprint '676 LTE User Equipment and Network Equipment."

The '676 Defendants directly infringe the apparatus claims of the '676 patent by making, using, offering to sell, selling, and/or importing the Sprint '676 LTE User Equipment and Network Equipment. The '676 Defendants also directly infringe the '676 patent by making, using, selling, offering for sale, and/or importing the Sprint '676 LTE User Equipment and

Network Equipment to practice the claimed methods. The '676 Defendants are thereby liable for direct infringement.

- On information and belief, each '676 Defendant, or an affiliated entity, is a 3rd Generation Partnership Project (or "3GPP") member organization, or is affiliated with a 3GPP member organization. 3GPP solicits identification of standard essential patents, and, through 3GPP, the '676 Defendants received actual notice of the standard essential patents at issue here. The '676 patent is one such patent, and the '676 Defendants have known of the '676 patent; the '427 Application; and/or the fact that the '676 patent's disclosure would be the subject of patent protection at least as early as December 2012, when it was disclosed to 3GPP via the European Telecommunications Standards Institute ("ETSI," an organizational member of 3GPP). Alternatively, each '676 Defendant has had knowledge of the '676 patent, at least as early as service of the First Amended Complaint in this action. *See, e.g., Patent Harbor, LLC v. Dreamworks Animation SKG, Inc.*, No. 6:11-cv-229, 2012 U.S. Dist. LEXIS 114199, at \*17 (E.D. Tex. Jul. 27, 2012).
- Additionally, the '676 Defendants are liable for indirect infringement of the '676 patent because they induce and/or contribute to the direct infringement of the patent by their customers (including Sprint by its suppliers) and other end users who use the Sprint '676 LTE User Equipment and Network Equipment to practice the claimed methods. On information and belief, as set forth above, the '676 Defendants had knowledge of the '676 patent; the '427 Application; and/or the fact that the '676 patent's disclosure would be the subject of patent protection at least as early as December 2012. And since that time, the '676 Defendants have specifically intended and continue to specifically intend for persons who acquire and use the Sprint '676 LTE User Equipment and Network Equipment, including the '676 Defendants'

customers (e.g., mobile device users, Sprint, etc.), to use such devices in a manner that infringes the '676 patent. In the alternative, the '676 Defendants have had knowledge of the '676 patent, at least as early as service of the First Amended Complaint in this action. And since that time, the '676 Defendants have specifically intended and continue to specifically intend for persons who acquire and use the Sprint LTE User Equipment and Network Equipment, including the '676 Defendants' customers (e.g., mobile device users, Sprint, etc.), to use such devices in a manner that infringes the '676 patent.

- 75. Despite having knowledge of the '676 patent, the '676 Defendants named in this Count have specifically intended and continue to specifically intend for persons who acquire and use the Sprint '676 LTE User Equipment and Network Equipment, including the '676 Defendants' customers (e.g., mobile device users, Sprint, etc.), to use such devices in a manner that infringes one or more claims of the '676 patent. This is evident when the '676 Defendants encourage and instruct customers and other end users in the use and operation of the Sprint '676 LTE User Equipment and Network Equipment via advertisement and instructional materials.
- 76. In particular, despite having knowledge of the '676 patent, the '676 Defendants have provided, and continue to provide, instructional materials, such as user guides, owner manuals, and similar online (available for example, resources via http://support.sprint.com/support/devicepage, http://support.apple.com/manuals/, http://www.htc.com/us/support/, http://www.zteusa.com/support\_page, and other instructional materials and documentation provided or made available by the '676 Defendants to customers after purchase) that specifically teach the customers and other end users to use the Sprint '676 LTE User Equipment and Network Equipment in an infringing manner. By providing such

instructions, the '676 Defendants know (and have known), or should know (and should have

known), that their actions have, and continue to, actively induce infringement.

77. Additionally, the '676 Defendants named in this Count know, and have known,

that the Sprint '676 LTE User Equipment and Network Equipment include proprietary hardware

components and software instructions that work in concert to perform specific, intended

functions. Such specific, intended functions, carried out by these hardware and software

combinations, are a material part of the inventions of the '676 patent and are not staple articles of

commerce suitable for substantial non-infringing use.

78. Specifically, each of the Sprint User Equipment contains at least a transceiver and

a baseband processor implementing, in combination with software instructions, functionality that

is specifically programmed and/or configured to provide a power control headroom report in

response to determining that asset of at least one triggering criterion is met, as claimed in the

'676 patent. Upon information and belief, the Sprint User Equipment contains discrete code that

uniquely provides this functionality. The code, which is configured to control the baseband

processor, transceiver, and other components for performing these functions, is a material part of

the inventions of the '676 patent and there is no substantial non-infringing use for this

combination of hardware and software components.

79. Specifically, each of the Sprint '676 Base Stations contains at least a transceiver

and a baseband processor implementing, in combination with software instructions, functionality

that is specifically programmed and/or configured to receive a power control headroom report in

response to the user equipment determining that a set of at least one triggering criterion is met, as

claimed in the '676 patent. Upon information and belief, the Sprint '676 Base Stations contain

discrete code that uniquely provides this functionality. The code, which is configured to control

the baseband processor, transceiver, and other components for performing these functions, is a material part of the inventions of the '676 patent and there is no substantial non-infringing use for this combination of hardware and software components.

- 80. On information and belief, despite having knowledge of the '676 patent and knowledge that they are directly and/or indirectly infringing one or more claims of the '676 patent, the '676 Defendants named in this Count have nevertheless continued their infringing conduct and disregarded an objectively high likelihood of infringement; thus, the '676 Defendants' infringing activities relative to the '676 patent have been, and continue to be, willful, wanton, and deliberate in disregard of CCE's rights.
- 81. On information and belief, Sprint along with its suppliers, Alcatel, Apple, HTC, and ZTE, test, make, use, offer for sale, sell, and/or import the Sprint '676 LTE User Equipment and Network Equipment described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution, sale, and operation of such devices. Accordingly, Sprint, Alcatel, Apple, HTC, and ZTE are jointly, severally, or alternatively liable for infringements described in this Count.
- 82. CCE has been damaged as a result of the '676 Defendants' infringing conduct described in this Count. The '676 Defendants are, thus, liable to CCE in an amount that adequately compensates CCE for the '676 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. 9,025,590)

83. CCE incorporates paragraphs 1 through 22 herein by reference.

- 84. CCE is the assignee of the '590 patent, entitled "Carrier Aggregation with Power Headroom Report," with ownership of all substantial rights in the '590 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements. A true and correct copy of the '590 patent is attached as Exhibit E.
- 85. The '590 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.
- 86. Defendants Sprint, Alcatel, and Ericsson have and continue to directly and/or indirectly infringe (by inducing infringement and/or contributing to infringement) one or more claims of the '590 patent in this judicial district and elsewhere in Texas and the United States without the consent or authorization of CCE, by or through their making, having made, offering for sale, selling, importing, and/or using Sprint's base station equipment—including equipment supplied by Alcatel and Ericsson—including, for example: the Alcatel-Lucent 9768, Alcatel-Lucent 9100 Multi-Standard Base Station, Alcatel-Lucent 9412 eNodeB Compact, Alcatel-Lucent lightRadio 9711, Alcatel-Lucent lightRadio 9712, Alcatel-Lucent 9768, Alcatel-Lucent Evercore LTE 400 PMR, Alcatel-Lucent Multi-Carrier Remote Radio Head, and Ericsson RBS 6000 series, compatible with the Sprint LTE cellular network and made, used, sold, offered for sale, imported, and/or operated by or through Sprint and/or its suppliers for use in Sprint's LTE network (the "Sprint Base Stations").
- 87. Defendants directly infringe the apparatus claims of the '590 patent by making, using, offering to sell, selling, and/or importing the Sprint Base Stations. Defendants also directly infringe the '590 patent by making, using, selling, offering for sale, and/or importing the Sprint Base Stations to practice the claimed methods. Defendants are thereby liable for direct infringement.

- 88. Additionally, Defendants are liable for indirect infringement of the '590 patent because they induce and/or contribute to the direct infringement of the patent by their customers (including Sprint by its suppliers) and other end users who use the Sprint Base Stations to practice the claimed methods. Defendants have specifically intended and continue to specifically intend for persons who acquire and use the Sprint Base Stations, including Defendants' customers (e.g., mobile device users, Sprint, etc.), to use such devices in a manner that infringes the '590 patent.
- 89. Each Defendant has had knowledge of the '590 patent, at least as early as service of the First Amended Complaint in this action. *See, e.g., Patent Harbor, LLC v. Dreamworks Animation SKG, Inc.*, No. 6:11-cv-229, 2012 U.S. Dist. LEXIS 114199, at \*17 (E.D. Tex. Jul. 27, 2012).
- 90. Despite having knowledge of the '590 patent, Defendants named in this Count have specifically intended and continue to specifically intend for persons who acquire and use the Sprint Base Stations, including Defendants' customers (e.g., mobile device users, Sprint, etc.), to use such devices in a manner that infringes one or more claims of the '590 patent. This is evident when Defendants encourage and instruct customers and other end users in the use and operation of the Sprint Base Stations via advertisement and instructional materials.
- In particular, despite having knowledge of the '590 patent, Defendants have 91. provided, and continue to provide, instructional materials, such as user guides, owner manuals, similar online (available and resources for example, via http://support.sprint.com/support/devicepage and other instructional materials and documentation provided or made available by Defendants to customers after purchase) that

specifically teach the customers and other end users to use the Sprint Base Stations in an infringing manner. By providing such instructions, Defendants know (and have known), or should know (and should have known), that their actions have, and continue to, actively induce

- 92. Additionally, Defendants named in this Count know, and have known, that the Sprint Base Stations include proprietary hardware components and software instructions that work in concert to perform specific, intended functions. Such specific, intended functions, carried out by these hardware and software combinations, are a material part of the inventions of the '590 patent and are not staple articles of commerce suitable for substantial non-infringing
- 93. Specifically, each of the Sprint Base Stations contains at least a transceiver and a baseband processor implementing, in combination with software instructions, functionality that is specifically programmed and/or configured to configure a user equipment to send a power headroom report control element including a bitmap that indicates power headroom reports being reported and receive and process the power headroom report control element, as claimed in the '590 patent. Upon information and belief, the Sprint Base Stations contain discrete code that uniquely provides this functionality. The code, which is configured to control the baseband processor, transceiver, and other components for performing these functions, is a material part of the inventions of the '590 patent and there is no substantial non-infringing use for this combination of hardware and software components.
- 94. On information and belief, despite having knowledge of the '590 patent since at least the filing of the First Amended Complaint in this action and knowledge that they are directly and/or indirectly infringing one or more claims of the '590 patent since at least the filing

infringement.

use.

of the First Amended Complaint in this action, Defendants named in this Count have nevertheless continued their infringing conduct and disregarded an objectively high likelihood of infringement; thus, Defendants' infringing activities relative to the '590 patent have been, and continue to be, willful, wanton, and deliberate in disregard of CCE's rights.

- 95. On information and belief, Sprint along with its suppliers, Alcatel and Ericsson, test, make, use, offer for sale, sell, and/or import the Sprint Base Stations described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution, sale, and operation of such devices. Accordingly, Sprint, Alcatel, and Ericsson are jointly, severally, or alternatively liable for infringements described in this Count.
- 96. CCE has been damaged as a result of Defendants' infringing conduct described in this Count. Defendants are, thus, liable to CCE in an amount that adequately compensates CCE 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 VI**

(INFRINGEMENT OF U.S. PATENT NO. 9,078,262)

- 97. CCE incorporates paragraphs 1 through 22 herein by reference.
- 98. CCE is the assignee of the '262 patent, entitled "Signalling of Channel Information," with ownership of all substantial rights in the '262 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements. A true and correct copy of the '262 patent is attached as Exhibit F.
- 99. The '262 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.
- 100. Defendants Sprint, Alcatel, and Ericsson have and continue to directly and/or indirectly infringe (by inducing infringement and/or contributing to infringement) one or more

claims of the '262 patent in this judicial district and elsewhere in Texas and the United States without the consent or authorization of CCE, by or through their making, having made, offering for sale, selling, importing, and/or using Sprint's base station equipment—including equipment supplied by Alcatel and Ericsson—including, for example: the Alcatel-Lucent 9768, Alcatel-Lucent 9100 Multi-Standard Base Station, Alcatel-Lucent 9412 eNodeB Compact, Alcatel-Lucent lightRadio 9711, Alcatel-Lucent lightRadio 9712, Alcatel-Lucent 9768, Alcatel-Lucent Evercore LTE 400 PMR, Alcatel-Lucent Multi-Carrier Remote Radio Head, and Ericsson RBS 6000 series, compatible with the Sprint LTE cellular network and made, used, sold, offered for sale, imported, and/or operated by or through Sprint and/or its suppliers for use in Sprint's LTE network (the "Sprint Base Stations").

- 101. Defendants directly infringe the apparatus claims of the '262 patent by making, using, offering to sell, selling, and/or importing the Sprint Base Stations. Defendants also directly infringe the '262 patent by making, using, selling, offering for sale, and/or importing the Sprint Base Stations to practice the claimed methods. Defendants are thereby liable for direct infringement.
- 102. Additionally, Defendants are liable for indirect infringement of the '262 patent because they induce and/or contribute to the direct infringement of the patent by their customers (including Sprint by its suppliers) and other end users who use the Sprint Base Stations to practice the claimed methods. Defendants have specifically intended and continue to specifically intend for persons who acquire and use the Sprint Base Stations, including Defendants' customers (e.g., mobile device users, Sprint, etc.), to use such devices in a manner that infringes the '262 patent.

103. Each Defendant has had knowledge of the '262 patent, at least as early as service of the First Amended Complaint in this action. *See, e.g., Patent Harbor, LLC v. Dreamworks Animation SKG, Inc.*, No. 6:11-cv-229, 2012 U.S. Dist. LEXIS 114199, at \*17 (E.D. Tex. Jul. 27, 2012).

104. Despite having knowledge of the '262 patent, Defendants named in this Count have specifically intended and continue to specifically intend for persons who acquire and use the Sprint Base Stations, including Defendants' customers (e.g., mobile device users, Sprint, etc.), to use such devices in a manner that infringes one or more claims of the '262 patent. This is evident when Defendants encourage and instruct customers and other end users in the use and operation of the Sprint Base Stations via advertisement and instructional materials.

In particular, despite having knowledge of the '262 patent, Defendants have 105. provided, and continue to provide, instructional materials, such as user guides, owner manuals, similar online and (available for example, via resources http://support.sprint.com/support/devicepage and other instructional materials and documentation provided or made available by Defendants to customers after purchase) that specifically teach the customers and other end users to use the Sprint Base Stations in an infringing manner. By providing such instructions, Defendants know (and have known), or should know (and should have known), that their actions have, and continue to, actively induce infringement.

106. Additionally, Defendants named in this Count know, and have known, that the Sprint Base Stations include proprietary hardware components and software instructions that work in concert to perform specific, intended functions. Such specific, intended functions, carried out by these hardware and software combinations, are a material part of the inventions of

the '262 patent and are not staple articles of commerce suitable for substantial non-infringing

use.

107. Specifically, each of the Sprint Base Stations contains at least a transceiver and a

baseband processor implementing, in combination with software instructions, functionality that

is specifically programmed and/or configured to generate and send a request for providing

aperiodic channel information for a selected downlink component carrier, as claimed in the '262

patent. Upon information and belief, the Sprint Base Stations contain discrete code that uniquely

provides this functionality. The code, which is configured to control the baseband processor,

transceiver, and other components for performing these functions, is a material part of the

inventions of the '262 patent and there is no substantial non-infringing use for this combination

of hardware and software components.

108. On information and belief, despite having knowledge of the '262 patent since at

least the filing of the First Amended Complaint in this action and knowledge that they are

directly and/or indirectly infringing one or more claims of the '262 patent since at least the filing

of the First Amended Complaint in this action, Defendants named in this Count have

nevertheless continued their infringing conduct and disregarded an objectively high likelihood of

infringement; thus, Defendants' infringing activities relative to the '262 patent have been, and

continue to be, willful, wanton, and deliberate in disregard of CCE's rights.

109. On information and belief, Sprint along with its suppliers, Alcatel and Ericsson,

test, make, use, offer for sale, sell, and/or import the Sprint Base Stations described in this Count,

pursuant to one or more contractual agreements between them relating to, at least, the

distribution, sale, and operation of such devices. Accordingly, Sprint, Alcatel, and Ericsson are

jointly, severally, or alternatively liable for infringements described in this Count.

110. CCE has been damaged as a result of Defendants' infringing conduct described in this Count. Defendants are, thus, liable to CCE in an amount that adequately compensates CCE 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**

- 111. CCE incorporates paragraphs 1 through 110 herein by reference.
- Alcatel, Ericsson, Apple, HTC, and ZTE certain mobile devices and/or base station equipment for sale, resale, distribution to their customers (and other end users), and/or use in their cellular communications networks for the benefit of their customers (and other end users), that are the subject of Counts I through VI (or some subset thereof). Thus, for these Counts, the right to relief against Alcatel, Ericsson, Apple, HTC, and ZTE is asserted jointly and severally with Sprint.
- 113. The alleged infringements set forth in Counts I through VI arise out of the same transaction, occurrence, or series of transactions or occurrences relating to the testing, making, using, offering for sale, selling, and/or importing of the Sprint devices and equipment made the subject of Counts I through VI.
- 114. Questions of fact common to all Defendants will arise in this action including, for example, infringement by, or through use of, Sprint devices and equipment.
- 115. Thus, joinder of Sprint, Alcatel, Ericsson, Apple, HTC, and ZTE is proper in this litigation pursuant to 35 U.S.C. § 299(a).

### **JURY DEMAND**

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

#### PRAYER FOR RELIEF

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

- a. Judgment that one or more claims of the '022, '957, '472, '676, '590, and '262 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 and/or by others to whose infringements Defendants have contributed;
- b. Judgment that Defendants account for and pay to CCE all damages to and costs incurred by CCE because of Defendants' infringing activities and other conduct complained of herein;
- c. Judgment that Defendants account for and pay to CCE a reasonable, ongoing, post-judgment royalty because of Defendants' infringing activities and other conduct complained of herein;
- d. That Defendants' infringements relative to the '022, '957, '472,'676, '590, and '262 patents be found willful from the time that Defendants 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 CCE 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 CCE be granted such other and further relief as the Court may deem just and proper under the circumstances.

Dated: August 15, 2016

## Respectfully submitted,

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# **CERTIFICATE OF SERVICE**

I hereby certify that a true and correct copy of the foregoing document was filed electronically in compliance with Local Rule CV-5 on August 15, 2016. As of this date all counsel of record have consented to electronic service and are being served with a copy of this document through the Court's CM/ECF system under Local Rule CV-5(a)(3)(A).

/s/ Jeffrey R. Bragalone Jeffrey R. Bragalone