

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

3G LICENSING, S.A.,)	
KONINKLIJKE KPN N.V., and)	
ORANGE S.A.,)	C.A. No. 17-cv-82-LPS-CJB
)	
Plaintiffs,)	<u>JURY TRIAL DEMANDED</u>
)	
v.)	
)	
BLACKBERRY LIMITED)	
and BLACKBERRY CORPORATION)	
)	
Defendants.)	
)	

SECOND AMENDED COMPLAINT FOR PATENT INFRINGEMENT

This is an action for patent infringement in which Plaintiffs 3G Licensing, S.A. (hereafter “3G Licensing”), Orange S.A. (hereafter “Orange”) and Koninklijke KPN N.V. (hereafter “KPN”) (collectively “Plaintiffs”) make the following allegations against BlackBerry Ltd., and BlackBerry Corporation (collectively “BlackBerry” or “Defendants”):

BACKGROUND

1. 3G Licensing holds more than 400 patent and patent applications fundamental to a variety of core technologies involving consumer electronics and wireless telecommunication implementations. 3G Licensing’s patents have been licensed by many of the world’s leading mobile technology companies, including BlackBerry’s competitors.

2. KPN’s extensive research and development efforts likewise have led to hundreds of issued patents in the United States and across the world. These patents have been licensed in turn by leading global telecommunications companies, including many of BlackBerry’s mobile technology competitors.

3. Plaintiffs have made their patents available for license on an individual basis through bilateral negotiations and, at the licensor's option, collectively through joint licensing or patent pool licensing arrangements.

4. Prior to filing suit in this action, Plaintiffs provided BlackBerry with notice of the patents at issue and engaged in lengthy negotiations with BlackBerry to try to resolve this dispute.

5. Despite these efforts, BlackBerry refused to license on mutually agreeable terms the patents described herein. Plaintiffs therefore file this suit against BlackBerry seeking the Court's protection of their valuable intellectual property rights.

PARTIES

6. Plaintiff 3G Licensing, S.A., is an intellectual property licensing corporation that has its headquarters at 6, Avenue Marie-Thérèse, L-2132 Luxembourg.

7. Plaintiff Orange S.A. (formerly France Télécom S.A.) is a multi-national telecommunications solution provider incorporated under the laws of France that has its headquarters at 78, rue Olivier de Serres, 75015 Paris, France. Orange joins this action as a nominal plaintiff only as to those patents identified herein as having been assigned to 3G Licensing.

8. Plaintiff Koninklijke KPN N.V. is a telecommunications (including fixed, mobile, television and internet) and ICT solution provider headquartered at Maanplein 55, NL-2516 CK, The Hague, The Netherlands.

9. On information and belief, Defendant BlackBerry Ltd. is a Canadian corporation with a principal place of business at 2200 University Ave East, Waterloo, Ontario, Canada N2K 0A7.

10. On information and belief, Defendant BlackBerry Corporation is a Delaware corporation with a principal place of business at 5000 Riverside Drive, Irving, Texas 75039 and is a wholly owned subsidiary of BlackBerry Ltd., which has identified it as the sole United States contact for “BlackBerry United States.”

JURISDICTION AND VENUE

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

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

13. This Court has personal jurisdiction over Defendants because, directly or through intermediaries, each has committed acts within Delaware giving rise to this action and/or has established minimum contacts with Delaware such that the exercise of jurisdiction would not offend traditional notions of fair play and substantial justice.

14. For example, BlackBerry Ltd. has placed and is continuing to place infringing products into the stream of commerce via an established distribution channel with the knowledge and/or understanding that such products are being and will continue to be sold in the State of Delaware, including in this District.

15. On information and belief, BlackBerry Ltd. also has derived substantial revenues from its infringing acts in the State of Delaware and this District, including from its sales of infringing devices in the United States.

16. In addition, Defendants have, and continue to, knowingly induce infringement by others within this District by advertising, marketing, offering for sale, and/or selling devices containing infringing functionality within this District to consumers, customers, manufacturers,

distributors, resellers, partners, and/or end users, and by providing instructions, user manuals, advertising, and/or marketing materials which facilitate, direct, or encourage the use of infringing functionality with knowledge thereof.

17. Venue is proper under 28 U.S.C. § 1391(b) and (c) and 28 U.S.C. § 1400.

THE ASSERTED PATENTS

18. This lawsuit asserts causes of action for infringement of United States Patent Nos. 6,212,662 (“’662 patent”); 9,014,667 (“’667 patent”); 7,933,564 (“’564 patent”); 7,995,091 (“’091 patent”); and 6,856,818 (“’818 patent”) (collectively, the “Asserted Patents”).

19. The ’662 and ’667 patents previously were the subject of litigation captioned *Koninklijke KPN N.V., v. Samsung Electronics Co., Ltd.*, Civil Action Nos. 2:14-cv-1165 and 2:15-cv-948 (E.D. Tex.). On September 21, 2016, the parties filed a “Joint Stipulation to Dismiss” that lawsuit.

20. On July 8, 2016, the United States Patent and Trademark Office, Patent Trial and Appeal Board (“PTAB”) largely declined to institute *inter partes* review of the ’662 patent—finding “no reasonable likelihood” that any of the invalidity contentions directed at claims 3 and 4 of the ’662 patent had merit.

21. Defendants have been on notice of the asserted patents, have been invited to take a license to the asserted patents, and have declined to license the asserted patents.

22. On information and belief, both BlackBerry Ltd. and BlackBerry Corporation received notice of the ’662 patent and their respective infringement of it at least by October 7, 2014, when KPN sent Randall W. Mishler (BlackBerry Corporation’s Senior Director of Licensing) an email that identified the ’662 patent and attached claim charts demonstrating how BlackBerry’s Long-Term Evolution radio platform technology (“LTE,” also commonly referred

to as “4G” and/or “4G LTE” and/or “LTE-Advanced”) and UMTS (also commonly referred to as “3G” and/or “W-CDMA”) devices infringed the ’662 patent. In the same communication, KPN identified exemplary infringing BlackBerry smartphone products and invited both BlackBerry Ltd. and BlackBerry Corporation to obtain a license to the ’662 patent.

23. Each BlackBerry Defendant subsequently was provided additional notice of the ’662 patent and its infringement. For example, on November 5, 2014, KPN emailed Mr. Mishler again to reiterate that BlackBerry needed to obtain a license to the ’662 patent for its LTE and UMTS products. KPN also reiterated its position in a letter to BlackBerry Ltd., copying Mr. Mishler, dated June 23, 2016.

24. In addition, on behalf of KPN, Sisvel UK Limited, the parent company of 3G Licensing, invited BlackBerry Ltd. in letters dated June 1 and July 7, 2015, to take a license to the ’662 patent—pointing out that such a license was needed for “BlackBerry’s LTE capable products, including but not limited to the BlackBerry QS, BlackBerry Q10, BlackBerry P’9983, BlackBerry Z10, BlackBerry Z3076, and BlackBerry Passport.” Mr. Mishler acknowledged receipt of KPN’s July 7, 2015 letter in a letter he sent to Sisvel dated July 9, 2015.

25. Subsequently, in a phone call that took place on July 29, 2015, Sisvel UK Limited offered to provide Mr. Mishler “any and all information supporting the essentiality and value of [its] patents,” including claim charts once BlackBerry agreed to a non-disclosure agreement.

26. Subsequently, in a letter dated August 11, 2015, Sisvel UK Limited offered to meet with Mr. Mishler the week of September 4, 2015, to discuss BlackBerry obtaining a license for products “which implement LTE or LTE-Advanced technology.”

27. Subsequently, in an email to Mr. Mishler dated October 1, 2015, Sisvel UK Limited reiterated that it was “prepared to share the information necessary for BlackBerry to

understand the merits of being counted among our licensees,” including claim charts, but first needed BlackBerry to agree to an appropriate non-disclosure agreement.

28. Sisvel UK Limited reiterated that position to Mr. Mishler in an email dated October 28, 2015. Further, in letters dated December 21, 2015, and January 27, 2016, Sisvel repeated its invitation to meet with BlackBerry to discuss obtaining a license to the '662 patent for BlackBerry products “that implement 3G, 4G LTE, and/or WiFi wireless communication technology” and thus practice the invention claimed by the '662 patent.

29. In an email dated May 17, 2016, Sisvel again informed Mr. Mishler that BlackBerry needed to obtain a license for its products and again offered to send claim charts.

30. In a subsequent letter dated June 6, 2016, Sisvel UK Limited reiterated to Mr. Mishler that BlackBerry needed to obtain a license for its LTE compatible products and explained both that it had “alerted BlackBerry of the patents offered under license and notified BlackBerry of the infringement thereof by BlackBerry’s LTE enabled products,” “explained to BlackBerry the way said patents are infringed,” and even “offered to make its engineers available for further discussion, which BlackBerry refused or ignored.” Further, Sisvel UK Limited informed BlackBerry that claim 1 of the '662 patent had been recognized as essential to various standards, including 3GPP TS 36.212 v9.3.0, Section 5, 5.1, 5.1.1, 5.1.2, 5.1.3, Table 5.1.3-1, 5.1.3.2, 5.1.3.2.1, Figure 5.1.3-2, 5.1.3.2.3, which govern the generation of data for error checking and must be complied with to be interoperable with standard LTE data networks.

31. BlackBerry Ltd. and BlackBerry Corporation also received notice of the '667 patent and their respective infringement of it at least through a discussion that took place between Mr. Mishler and, on behalf of KPN, representatives of Sisvel UK Limited, the parent company of 3G Licensing, on October 28, 2015, during which, or shortly after which, Sisvel

identified the '667 patent and invited BlackBerry to license the '667 patent to avoid infringing it through the sale of its LTE devices and offered “to share the information necessary for BlackBerry to understand the merits of being counted among our licensees,” including claim charts, but first needed BlackBerry to agree to an appropriate non-disclosure agreement. Prior to that discussion, KPN had provided notice to Mr. Mishler of the European counterpart to the '667 patent, EP2250835, at least by an email dated October 7, 2014, in which KPN also provided Mr. Mishler with claim charts demonstrating how BlackBerry's LTE and UMTS devices infringed EP2250835.

32. Each BlackBerry Defendant subsequently received additional notice of the '667 patent and its infringement. For example, in a letter dated December 21, 2015, Sisvel UK Limited again identified the '667 patent and invited BlackBerry to meet with it to discuss obtaining a license to the '667 patent to avoid infringing it through its sale of its LTE devices. Further, in a letter dated January 27, 2016, Sisvel repeated its invitation to meet with BlackBerry to discuss obtaining a license to the '667 patent for BlackBerry products “that implement 3G [or] 4G LTE” technology.

33. In an email dated May 17, 2016, Sisvel again informed Mr. Mishler that BlackBerry needed to obtain a license for its LTE and 3G products and again offered to send claim charts.

34. In a subsequent letter dated June 6, 2016, Sisvel UK Limited reiterated to Mr. Mishler that BlackBerry needed to obtain a license for its LTE compatible products and explained both that it had “alerted BlackBerry of the patents offered under license and notified BlackBerry of the infringement thereof by BlackBerry's LTE enabled products,” “explained to BlackBerry the way said patents are infringed,” and even “offered to make its engineers

available for further discussion, which BlackBerry refused or ignored.” Further, Sisvel UK Limited informed BlackBerry that the ’667 patent had been recognized as essential to various LTE standards.

35. Further, on July 22, 2016, KPN again provided Mr. Mishler with claim charts showing how BlackBerry’s LTE and UMTS devices infringed EP2250835 (the European counterpart to the ’667 patent)—also informing Mr. Mishler that the ’667 patent was the United States counterpart to EP2250835 and that the ’667 had been recognized as essential to many of the same telecommunications standards as the EP2250835, including the 3GPP TS 22.368 v10.5.0 (2011-06) standard for Machine-Type Communications (MTC); the 3GPP TS 23.003 v10.10.0 (2014-09) standard for Technical Specification Group Core Network and Terminals; the 3GPP Specification TS 23.060 v10.14.0 (2014-09) standard for General Packet Radio Service (GPRS); and the 3GPP Specification TS 24.008 v10.15.0 (2014-09) standard for Mobile Radio Interface Layer 3 Specification.

36. Further, both BlackBerry Ltd. and BlackBerry Corporation received notice of infringement on the filing of the original Complaint in this action on January 30, 2017.

37. BlackBerry Ltd. received notice of the ’818 and ’091 patents and its alleged infringement of them at least on receiving a letter from Sisvel UK Limited, the parent company of 3G Licensing, dated June 1, 2015, inviting BlackBerry Ltd. to license those patents—pointing out that such a license was needed for “BlackBerry’s LTE capable products, including but not limited to the BlackBerry QS, BlackBerry Q10, BlackBerry P’9983, BlackBerry Z10, BlackBerry Z3076, and BlackBerry Passport.” Sisvel sent a similar letter dated July 7, 2015, which Mr. Mishler acknowledged receipt of in a letter dated July 9, 2015.

38. Subsequently, in a phone call that took place on July 29, 2015, Sisvel UK Limited offered to provide Mr. Mishler “any and all information supporting the essentiality and value of [its] patents,” including claim charts once BlackBerry agreed to a non-disclosure agreement.

39. Subsequently, in a letter dated August 11, 2015, Sisvel UK Limited offered to meet with Mr. Mishler the week of September 4, 2015, to discuss BlackBerry obtaining a license for products “which implement LTE or LTE-Advanced technology.”

40. Subsequently, in an email to Mr. Mishler dated October 1, 2015, Sisvel UK Limited reiterated that it was “prepared to share the information necessary for BlackBerry to understand the merits of being counted among our licensees,” including claim charts, but first needed BlackBerry to agree to an appropriate non-disclosure agreement.

41. Sisvel UK Limited reiterated that position to Mr. Mishler in an email dated October 28, 2015. Further, in letters dated December 21, 2015, and January 27, 2016, Sisvel repeated its invitation to meet with BlackBerry to discuss obtaining a license to the ’564, ’818, and ’091 patents for BlackBerry products “that implement 3G, 4G LTE, and/or WiFi wireless communication technology” and thus practice ’564, ’818, and ’091 patents.

42. In an email dated May 17, 2016, Sisvel again informed Mr. Mishler that BlackBerry needed to obtain a license for its products and again offered to send claim charts.

43. In a subsequent letter dated June 6, 2016, Sisvel UK Limited reiterated to Mr. Mishler that BlackBerry needed to obtain a license for its products and stated that it previously had “alerted BlackBerry of the patents offered under license and notified BlackBerry of the infringement thereof by BlackBerry’s LTE enabled products,” “explained to BlackBerry the way said patents are infringed,” and even “offered to make its engineers available for further discussion, which BlackBerry refused or ignored.” Sisvel further informed BlackBerry that claim

18 of the '818 patent had been recognized as essential to various standards, including 3GPP TS 21.111 V7.1.0, Sections 1, 4, 5.1, 5.2, 6.1 and 11.2; 3GPP TS 31.102 V7.13.0, Sections 4.4.2, 4.7, 5.1.1.1, and 5.3.29; 3GPP TS 31.101 V7.0.1, Section 8.1; ETSI TS 102.221 V7.4.0, Sections 8.2.2.2, 8.4.1, 8.4.3, 11.1.1.1, 11.1.3.1, 11.1.5.1, 11.1.5.2, Annex K and K.2, Figure 8.2, 8.4, and K.1, and Table 8.1 and 11.11, which govern the use of selective access to data stored on subscriber identity modules. And Sisvel further informed BlackBerry that the '091 patent had been recognized as essential to various standards, including 3GPP TS 24.173 V9.1.0, Sections 4.2 and 5.2; 3GPP TS 22.279 V7.1.0, Sections 1, 2, 3.1, 6, and 8; 3GPP TS 23.279 V7.7.0, Sections 8.1, Fig 8-1, 8.3.1, Fig 8.3-1, 8.3.2, and Fig 8.3-2.; 3GPP TS 23.228 V7.16.0, Sections 4.13.2 and 4.13.3; 3GPP TS 24.229 V7.28.0, Sections 5.1, 5.1.2A.1, 6.1.2, 6.1.3, 7.9.2, 7.2A.8.1, 7.2A.8.2, 7.2A.9.1, 7.2A.9.2, and 7.9.3; 3GPP TS 24.279 V7.7.0, Sections 6.3.1.8, 6.3.1.9, 7.3.1.3, 7.3.1.4, A.1, A.2, A.3, 7.3.1.8, and 7.3.1.9; and GSMA IR.84, Sections 2.6.1.1 and Table 2, which govern the making and discontinuing of mixed media telecommunications calls, including video calls.

44. In this letter, Sisvel further provided BlackBerry Ltd. and Blackberry Corporation with notice of the '564 patent and the “infringement thereof by BlackBerry’s LTE enabled products” and invited BlackBerry to obtain a license. Sisvel further informed BlackBerry that claim 1 of the '564 patent had been recognized as essential to various standards, including 3GPP TS 36.211 v8.7.0, Sections 6.3, 6.3.2, 6.3.3, 6.3.3.3, 6.3.4, 6.3.4.3-Figure 6.3-1, and Table 6.3.3.3-1, governing the use of multiple antennas to transmit or receive data.

45. Further, in a letter dated December 9, 2016, Sisvel UK Limited again told BlackBerry that it sale of UMTS compatible devices, including its “mobile phones, smartphones, mobile hotspots, tablets, e-book readers, laptops and other products,” “infringe at least claim [18]

of 3G Licensing US Patent No. US6856818 (“the ’818 Patent”), entitled “Data store for mobile radio station” and “request[ed] that Blackberry now take a license.”

46. Further, both BlackBerry Ltd. and BlackBerry Corporation received notice of their respective infringement of the ’818, ’091, and ’564 patents on Plaintiffs’ filing of the original Complaint in this action on January 30, 2017.

COUNT 1
INFRINGEMENT OF U.S. PATENT NO. 6,212,662

47. Plaintiffs repeat and incorporate by reference each preceding paragraph as if fully set forth herein and further state:

48. On April 3, 2001, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 6,212,662, which is entitled, “Method and Devices for the Transmission of Data With the Transmission Error Checking.” A true and correct copy of the ’662 patent is attached as Exhibit A.

49. KPN is the owner by assignment of the ’662 patent and holds all rights, title and interest to the ’662 patent, including the sole right to sue and recover for any and all infringements.

50. The devices claimed in the ’662 patent have proved to be of great importance to the field of error detection and correction.

51. For example, in 2011, Sisvel International, which manages the LTE/LTE-A patent pool, recognized claims 1-3 of the ’662 patent to be essential to §§ 5, 5.1, 5.1.1, 5.1.2, 5.1.3, 5.1.3.2, 5.1.3.2.1, and 5.1.3.2.3, including Figure 5.1.3-2, Tables 5.1.3-1 and 5.1.3-3, of the 3GPP TS 36.212 LTE communications standard. Shortly thereafter, the International Patent Evaluation Committee recognized claims 1-4 of the ’662 patent to be essential to §§ 1, 4.1,

4.2.2.2, 4.2.3, 4.2.3.2.1, 4.2.3.2.3, 4.2.3.2.3.1, and 4.2.3.2.3.2, including Figure 4 and Tables 1 and 2, of the 3GPP TS 25.212 standard for UMTS (W-CDMA) communications.

52. The '662 patent also has been treated as essential by both Sisvel International, which managed the cdma2000 patent pool, and Sipro Lab Telecom, Inc., which managed a pool of telecommunications patents essential to the W-CDMA 3GPP standard.

53. At least by October 7, 2014, KPN told both BlackBerry Ltd. and BlackBerry Corporation that the '662 patent had been recognized as essential to the 3GPP TS 36.212 standard for LTE communications and the 3GPP TS 25.212 standard for UMTS (W-CDMA) communications.

54. Consistent with this recognition of its importance to the field of error detection and correction, the '662 patent has been licensed extensively by many of BlackBerry's mobile technology competitors.

55. The '662 patent also has been the subject of prior litigation, including in *Koninklijke KPN N.V. v. Samsung Electronics Co., Ltd.*, Civil Action No. 2:14-cv-1165 (E.D. Tex.), in which the Court construed terms expected to be at issue in this matter. Plaintiffs rely on those constructions herein in support of their allegations.

56. Further, in the course of that prior litigation, Samsung Electronics Co., Ltd., et al., ("Samsung") filed a request for *inter partes* review—arguing claims 1-4 of the '662 patent were anticipated and/or obvious in light of multiple prior art references. After thorough consideration, the Patent Trial and Appeals Board ("PTAB") declined to institute *inter partes* review as to claims 3 and 4 of the '662 patent on any ground—concluding on the lengthy record before it that no "reasonable likelihood" existed that claims 3 and 4 were invalid. Regarding claims 1 and 2, the PTAB concluded that no "reasonable likelihood" existed that the claims were anticipated.

57. Samsung filed a Petition for Rehearing of the PTAB's decision. The PTAB subsequently issued another lengthy decision denying the request.

58. BlackBerry has directly infringed and continues to directly infringe the '662 patent in violation 35 U.S.C. § 271(a) by making, using, selling, and/or offering for sale in the United States, and/or importing into the United States, without authorization, products that practice claims 1-4 of the '662 patent literally or under the doctrine of equivalents (hereafter "'662 Accused Products"). At a minimum, such '662 Accused Products include all BlackBerry smartphones and other mobile telecommunication devices configured to send or receive data over an LTE, UMTS, or cdma2000 data network making use of or incorporating error checking technology as described in Ex. A. This includes products like the BlackBerry PRIV, including at least model numbers STV100-1 and STV100-2 (hereafter "PRIV"), which, on information and belief, is configured to transmit data on LTE, UMTS, and cdma2000 data networks.

59. As detailed in paragraphs 60-64 below, on information and belief, the BlackBerry PRIV is an LTE, UMTS, and cdma2000 compatible device that meets every element of claims 1-4 of the '662 patent literally or under the doctrine of equivalents.¹ Further, on information and belief, the identified components and functionality of the BlackBerry PRIV are representative of the components and functionality present in all '662 Accused Products, including but not limited to the BlackBerry Leap, the BlackBerry Classic, the BlackBerry Classic (Non Camera), the BlackBerry Porsche Design P'9983, the BlackBerry Passport, the BlackBerry Z3, the BlackBerry Porsche Design P'9982, the BlackBerry Z30, the BlackBerry 9720, the BlackBerry Q5, the BlackBerry Z10, the BlackBerry Q10, the BlackBerry 4G LTE Playbook, the BlackBerry Curve

¹ This description of BlackBerry's infringement of the '662 patent is illustrative and not intended to be an exhaustive or limiting explanation of every manner in which each '662 Accused Product infringes the '662 patent.

9320, the BlackBerry Curve 9220, the BlackBerry Curve 9380, the BlackBerry Bold 9790, the BlackBerry Porsche Design P'9981, the BlackBerry Curve 9370, the BlackBerry Curve 9360, the BlackBerry Curve 9350, the BlackBerry Torch 9810, the BlackBerry Torch 9860, the BlackBerry Torch 9850, the BlackBerry Bold Touch 9900, the BlackBerry Bold Touch 9930, the BlackBerry 4G Playbook HSPA+, the BlackBerry Playbook Wimax, the BlackBerry Playbook, the BlackBerry Bold 9780, the BlackBerry Style 9670, the BlackBerry Curve 3G 9330, the BlackBerry Curve 3G 9300, the BlackBerry Torch 9800, the BlackBerry Pearl 3G 9105, the BlackBerry Pearl 3G 9100, and the BlackBerry Bold 9650.

60. Claim 1 of the '662 patent is illustrative of the device claims of the '662 patent. It claims a device configured to check for errors in data, including in transmitted data, from data provided in blocks comprised of plural bits received in a particular ordered sequence. The device further includes at least one varying device configured to vary this original data, including through its incorporation of an interleaver or other permutating device configured to reorder at least some of the bits of the original data input to it without reordering any of the blocks of original data it receives, prior to supplying it to at least one generating device. The device further includes at least one generating device configured to generate supplementary data (check data) from the data it receives from the at least one permutating device.

61. On information and belief, the BlackBerry PRIV is a device configured to send and receive data transmitted in the form of blocks comprised of plural bits in a particular ordered sequence that can be used to generate data for error checking. On information and belief, the BlackBerry PRIV also is a device configured to use such data to check for errors in such transmitted data. Further, on information and belief, the BlackBerry PRIV includes a varying device configured to vary the original data it receives, including through its incorporation of an

interleaver configured to reorder the bit position of at least some of the bits of the original data provided to it without reordering any of the blocks of that original data, prior to supplying that now varied data to at least one generating device. Further, on information and belief, the BlackBerry PRIV further includes at least one device configured to generate supplementary data for use in error checking (i.e., check data), including through its use of an encoder.

62. Further, on information and belief, the BlackBerry PRIV includes at least one varying device, including, for example, an interleaver, configured to change from time to time the manner in which it reorders at least some of the data bits it receives as disclosed in claim 2 of the '662 patent.

63. On information and belief, the BlackBerry PRIV further includes at least one varying device, including, for example, an interleaver, configured to change the manner in which it reorders at least some of the bits it receives based on the characteristics of at least some of the bits it receives as disclosed in claim 3 of the '662 patent.

64. On information and belief, the BlackBerry PRIV further includes at least one permutating device, including, for example, an interleaver, that includes or makes use of data storage in which subsequent reorderings of the members of the given set are stored as disclosed in claim 4 of the '662 patent.

65. On information and belief, BlackBerry Ltd. therefore has directly infringed, and continues to directly infringe, each element of claims 1-4 of the '662 patent by selling and offering to sell in the United States, and by importing into the United States, without authorization, '662 Accused Products like the BlackBerry PRIV.

66. On information and belief, as the entity identified by BlackBerry Ltd. as being responsible for "BlackBerry United States," BlackBerry Corporation also has directly infringed,

and continues to directly infringe, each element of claims 1-4 of the '662 patent by selling and offering to sell in the United States, and by importing into the United States, without authorization, '662 Accused Products like the BlackBerry PRIV.

67. In addition, BlackBerry has indirectly infringed and continues to indirectly infringe the '662 patent in violation 35 U.S.C. § 271(b) by taking active steps to encourage and facilitate direct infringement by third parties, including OEMs, partners, service providers, manufacturers, importers, resellers, customers, and/or end users, in this District and elsewhere in the United States, through the dissemination of the '662 Accused Products and the creation and dissemination of promotional and marketing materials, supporting materials, instructions, product manuals, and/or technical information relating to such products with knowledge and the specific intent that its efforts will result in the direct infringement of the '662 patent.

68. For example, BlackBerry Ltd. has taken active steps to encourage end users of the BlackBerry PRIV to use the product in the United States in a manner it knows will directly infringe each element of claims 1-4 of the '662 patent as described above in paragraphs 60-64, including by encouraging users to utilize the BlackBerry PRIV to transmit data over LTE data networks despite knowing of the '662 patent and the fact that such data transmissions will cause an end user to use the BlackBerry PRIV in a manner that infringes the '662 patent.

69. Such active steps include, for example, advertising and marketing the BlackBerry PRIV as a smartphone capable of transmitting data on an LTE data network and instructing BlackBerry PRIV users how to utilize the BlackBerry PRIV to transmit data on such data networks in the written manuals it has provided, and continues to provide, despite its knowledge of the '662 patent and the fact that such data transmissions cause BlackBerry PRIV users to directly infringe the '662 patent. *See, e.g.*, <https://help.blackberry.com/en/priv/current/user->

guide-pdf/PRIV-6.0-User-Guide-en.pdf (instructing users at pages 22-23 and 25-29 how to connect to an LTE network and transmit data over such networks). In short, BlackBerry Ltd. has actively induced, and continues to actively induce the direct infringement of the '662 patent by its end users by, among other things, publishing BlackBerry PRIV manuals and promotional literature describing and instructing the configuration and operation by its customers of the BlackBerry PRIV in an infringing manner and by offering support and technical assistance to its customers that encourage use of the BlackBerry PRIV in ways that directly infringe claims 1-4 of the '662 patent.

70. Further, BlackBerry Ltd. undertook such active steps despite receiving notice from KPN of the '662 patent at least by October 7, 2014, and also having been provided claim charts by that same date showing how such use by end users infringed the '662 patent.

71. In addition, as the entity identified by BlackBerry Ltd. as being responsible for "BlackBerry United States," on information and belief, BlackBerry Corporation also has taken active steps to encourage end users of the BlackBerry PRIV to use the product in the United States in a manner it knows will directly infringe each element of claims 1-4 of the '662 patent as described above in paragraphs 60-64, including by encouraging users to utilize the BlackBerry PRIV to transmit data over LTE data networks despite knowing that such data transmissions will cause an end user to use the BlackBerry PRIV in a manner that infringes the '662 patent.

72. On information and belief, such active steps include, for example, participating in the advertising and marketing the BlackBerry PRIV as a smartphone capable of transmitting data on an LTE data network and instructing BlackBerry PRIV users how to utilize the BlackBerry PRIV to transmit data on such data networks in the written manuals it has provided, and continues to provide, despite its knowledge of the '662 patent and the fact that such data

transmissions cause BlackBerry PRIV users to directly infringe the '662 patent. *See, e.g.*, <https://help.blackberry.com/en/priv/current/user-guide-pdf/PRIV-6.0-User-Guide-en.pdf> (instructing users at pages 22-23 and 25-29 how to connect to an LTE network and transmit data over such networks). In short, on information and belief, BlackBerry Corporation likewise has actively induced, and continues to actively induce the direct infringement of the '662 patent by its end users by, among other things, providing end users with BlackBerry PRIV manuals and promotional literature describing and instructing the configuration and operation by its customers of the BlackBerry PRIV in an infringing manner and by offering support and technical assistance to its customers that encourage use of the BlackBerry PRIV in ways that directly infringe claims 1-4 of the '662 patent.

73. Further, BlackBerry Corporation participated in the undertaking of such active steps despite having notice of the '662 patent and even having been provided claim charts by KPN by October 7, 2014, showing how such use by end users would infringe the '662 patent.

74. In addition, BlackBerry has indirectly infringed and continues to indirectly infringe the '662 patent in violation 35 U.S.C. § 271(c) by selling or offering to sell in the United States, or importing into the United States, the '662 Accused Products with knowledge that they are especially designed or adapted to operate in a manner that infringes the '662 patent and despite the fact that the infringing technology or aspects of each '662 Accused Products are not a staple article of commerce suitable for substantial non-infringing use.

75. For example, both BlackBerry Ltd. and BlackBerry Corporation knew at least by October 7, 2014, that the functionality included in the '662 Accused Products that enabled each to perform error checking in accordance with the 3GPP TS 36.212 standard for LTE communications and the 3GPP TS 25.212 standard for UMTS (W-CDMA) communications

infringes the '662 patent. Further, on information and belief, BlackBerry Ltd. and BlackBerry Corporation knew that the '662 Accused Products, including the BlackBerry PRIV, were designed to ensure that they would be interoperable with standard LTE and UMTS data networks, which KPN had shown required them to operate in a manner that would infringe the '662 patent.

76. Further, on information and belief, the infringing aspects of the '662 Accused Products can only be used in a manner that infringes the '662 patent and thus have no substantial non-infringing uses. Again using the BlackBerry PRIV as an example, the product includes the devices described above at paragraphs 60-64 specifically so that it can generate check data in accordance with the invention claimed in the '662 patent in order to be interoperable with standard LTE and UMTS data networks. The infringing aspects of the BlackBerry PRIV otherwise have no meaningful use, let alone any meaningful non-infringing use.

77. In addition, BlackBerry's infringement of the '662 patent was willful. At least by October 7, 2014, both BlackBerry Ltd. and BlackBerry Corporation had received not just notice of the '662 patent, but detailed claim charts demonstrating how and why '662 Accused Products infringe the '662 patent. Nevertheless, without authorization, both BlackBerry Ltd. and BlackBerry Corporation deliberately continued to infringe the '662 patent in the manners described above, including by, on information and belief, selling and offering to sell in the United States, and importing into the United States, '662 Accused Products like the BlackBerry PRIV, in order to market such products as capable of utilizing LTE, UMTS, and cdma2000 data networks in order to promote the sale of those products.

78. BlackBerry's acts of infringement have caused damage to KPN, and KPN is entitled to recover from BlackBerry the damages it has sustained as a result of BlackBerry's wrongful acts in an amount subject to proof at trial.

COUNT 2
INFRINGEMENT OF U.S. PATENT NO. 9,014,667

79. Plaintiffs repeat and incorporate by reference each preceding paragraph as if fully set forth herein and further state:

80. On April 21, 2015, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 9,014,667 ("the '667 patent") which is entitled, "Telecommunications Network and Method for Time-Based Network Access." A true and correct copy of the '667 patent is attached as Exhibit B.

81. KPN is the owner by assignment of the '667 patent and holds all right, title and interest to the '667 patent, including the sole right to sue and recover for any and all infringements.

82. In September 2015, the International Patent Evaluation Committee found claims 31, 32, and 35 of the '667 patent to be essential to the following standards: 3GPP TS 22.368 §§ 3.1, 3.2, 4, 7.1.1, and Annex A; 3GPP TS 23.003 § 2.1; 3GPP TS 23.060 §§ 5.3.0, 5.3.1, 5.3.6.2.1, 5.3.6.2.2, 5.3.6.2.3, 5.3.6.2.4, 5.3.6.3, 5.3.6.4, 5.3.13.2, 5.6.3, 6.5.0, 6.8.2.2, 13.1, 13.2.1, 13.2.3, 13.4, 14.1, and 14.2; and 3GPP TS 24.008 §§ 4.1.1.7, 4.7.3.1.4 and 6.1.3.11.

83. Consistent with the recognition of its importance to the field of machine-to-machine communications, the '667 patent has been licensed extensively by many of BlackBerry's mobile technology competitors.

84. The '667 patent also has been the subject of prior litigation, including in *Koninklijke KPN N.V. v. Samsung Electronics Co., Ltd.*, Civil Action No. 2:14-cv-1165 (E.D.

Tex.), in which the Court construed terms expected to be at issue in this matter. Plaintiffs rely on those constructions herein in support of their allegations.

85. BlackBerry has infringed and continues to infringe the '667 patent in violation 35 U.S.C. § 271(a) by making, using, selling, and/or offering for sale in the United States, and/or importing into the United States, without authorization, products that practice claim 35 of the '667 patent literally or under the doctrine of equivalents (hereafter "'667 Accused Products"). At a minimum, such '667 Accused Products include all BlackBerry smartphones and other devices and technology configured to transmit data over an LTE network making use of or incorporating back-off timers and machine-to-machine communications as described in Ex. B. This includes products like the BlackBerry DTEK60, including at least model number BBA100-1 (hereafter "DTEK60"), and the BlackBerry DTEK50, which, on information and belief, are configured to transmit data on LTE data networks, and which utilizes back-off timers in connection with machine-to-machine communications.

86. For example, as detailed in paragraphs 87-88 below, on information and belief, the BlackBerry DTEK60 is an LTE compatible device that meets every element of claim 35 of the '667 patent literally or under the doctrine of equivalents.² Further, on information and belief, the identified components and functionality of the BlackBerry DTEK60 are representative of the components and functionality present in all '667 Accused Products.

87. Claim 35 of the '667 patent claims a terminal for use in a telecommunications network, wherein the telecommunications network is configured for providing access to a plurality of terminals, each terminal being associated with a unique identifier for accessing the

² This description of BlackBerry's infringement of the '667 patent is illustrative and not intended to be an exhaustive or limiting explanation of every manner in which each '667 Accused Product infringes the '667 patent.

telecommunications network. The terminal comprises a message receiver configured for receiving a message from the telecommunications network, the message comprising information relating to a deny access time interval, the deny access time interval being a time period during which telecommunications network access for the terminal is denied, wherein the time period is adapted by the telecommunications network depending on a monitored network load. The terminal further comprises one or more processors, and memory storing processor instructions that, when executed by the one or more processors, cause the one or more processors to carry out operations including: an access request operation for transmitting an access request to the telecommunications network in accordance with the deny access time interval, wherein machine-to-machine applications are executed in the telecommunications network, and wherein the terminal for the machine-to-machine applications are denied access to the telecommunications network during peak load time intervals, the time period being within peak load time intervals.

88. On information and belief, as recited in claim 35 of the '667 patent, the BlackBerry DTEK60 provides access a telecommunication network that is configured to provide access to multiple terminals/devices. On information and belief, each DTEK60 device is associated with a unique identifier when connected to an LTE network, at least through their compliance with the LTE standard. On information and belief, each DTEK60 has a Globally Unique Temporary UE Identify and Temporary Mobile Subscriber Identity whenever they are associated with an LTE network. On information and belief, the DTEK60 device comprises a message receiver configured for receiving a message from the telecommunications network. For instance, the BlackBerry DTEK60 contains at least a cellular modem and/or one or more processors (such as the Qualcomm MSM8996 Snapdragon 820) that receive messages from the telecommunication network that receives the message(s) from the telecommunications network.

On information and belief, the BlackBerry DTEK60 receives a message comprising information relating to a time slot during which access to the telecommunications network is denied, the time slot during which access to the telecommunications network is denied being a duration of time during which telecommunications network access for the terminal is denied. For instance, the '667 Accused Products, in response to a request such as ATTACH, Location Registration Request, PDN Connectivity Request, Bearer Resource Modification Request, PDP Context Activation Request, PDP Context Modification Request, or the like, may receive a "reject" message from a telecommunication network when the network is congested. Such "reject" message received by the '667 Accused Products includes a back-off timer (T3346 or T3396) value. This back-off timer value indicates the time value during which the telecommunications network may deny further network resource requests from the '667 Accused Products. On information and belief, the duration of time of the back-off timer is adapted by the telecommunications network depending on the monitored network load. The network load of the telecommunication network is monitored. For example, the network load is monitored through the MME congestion control in the telecommunications network. On information and belief, the DTEK60 device includes a processor (such as the Qualcomm MSM8996 Snapdragon 820) that executes instructions stored in the memory to interact with the telecommunication network. On information and belief, the processor in the DTEK60 device executes instructions to transmit a request to the telecommunications network to access its resources in accordance with the back-off timer's time interval. For example, when the BlackBerry DTEK60 sends a Request such as an ATTACH Request, Location Registration Request, PDN Connectivity Request, Bearer Resource Modification Request, PDP Context Activation Request, PDP Context Modification Request, or the like, to the network and subsequently receives from the network a "Reject"

message with a rejection cause value “22” (congestion) or cause “26” (insufficient resources), the BlackBerry DTEK60 does not attempt to resend the resource request until the expiration the received back-off timer period. On information and belief, the DTEK60 device executes machine-to-machine application in the telecommunication network. For example, the BlackBerry DTEK60 may request access for mail or application updates from the telecommunications network. Such machine-to-machine applications can be executed in the telecommunications network. The DTEK60 device is denied access by the telecommunications network during peak load time intervals and/or as the telecommunications network does not have sufficient resources. During such peak load time intervals, the DTEK60 device will receive a “Reject” message response with a back-off timer value. The BlackBerry DTEK60 device is denied the resource request during the time period within the back-off timer value.

89. On information and belief, BlackBerry Ltd. therefore has directly infringed, and continues to directly infringe, each element of claim 35 of the ’667 patent by selling and offering to sell in the United States, and by importing into the United States, without authorization, ’667 Accused Products like the BlackBerry DTEK60.

90. On information and belief, as the entity identified by BlackBerry Ltd. as being responsible for “BlackBerry United States,” BlackBerry Corporation also has directly infringed, and continues to directly infringe, each element of claim 35 of the ’667 patent by selling and offering to sell in the United States, and by importing into the United States, without authorization, ’667 Accused Products like the BlackBerry DTEK60.

91. In addition, BlackBerry has indirectly infringed and continues to indirectly infringe the ’667 patent in violation 35 U.S.C. § 271(b) by taking active steps to encourage and facilitate direct infringement by third parties, including OEMs, partners, service providers,

manufacturers, importers, resellers, customers, and/or end users, in this District and elsewhere in the United States, through the dissemination of the '667 Accused Products and the creation and dissemination of promotional and marketing materials, supporting materials, instructions, product manuals, and/or technical information relating to such products with knowledge and the specific intent that its efforts will result in the direct infringement of the '667 patent.

92. For example, BlackBerry Ltd. has taken active steps to encourage end users of the BlackBerry DTEK60 to use the product in the United States in a manner it knows will directly infringe each element of claim 35 of the '667 patent as described above in paragraphs 87-88, including by encouraging users to utilize the BlackBerry DTEK60 to make use of machine-to-machine communications over LTE data networks despite knowing of the '667 patent and the fact that such data communications that may be subject to a back-off timer will cause an end user to use the BlackBerry DTEK60 in a manner that infringes the '667 patent.

93. Such active steps include, for example, advertising and marketing the BlackBerry DTEK60 as a smartphone capable of using machine-to-machine applications on an LTE data network and instructing BlackBerry DTEK60 users how to utilize the BlackBerry DTEK60 to use such applications on such data networks in the written manuals it has provided, and continues to provide, despite its knowledge of the '667 patent and the fact that the use of such applications to make communications causes BlackBerry DTEK60 users to directly infringe the '667 patent. *See, e.g.*, <https://help.blackberry.com/en/dtek60/current/user-guide-pdf/DTEK60-6.0-User-Guide-en.pdf> (instructing users at pages 11-12 on the use of checking email messages or text messages, and at page 91 on how to use particular apps to obtain weather updates, or updates to a user's agenda, for example). In short, BlackBerry Ltd. has actively induced, and continues to actively induce the direct infringement of the '667 patent by its end users by, among

other things, publishing BlackBerry DTEK60 manuals and promotional literature describing and instructing the configuration and operation by its customers of the BlackBerry DTEK60 in an infringing manner and by offering support and technical assistance to its customers that encourage use of the BlackBerry DTEK60 in ways that directly infringe claim 35 of the '667 patent.

94. Further, BlackBerry Ltd. undertook such active steps after receiving notice of the '667 patent and its infringement of it.

95. In addition, as the entity identified by BlackBerry Ltd. as being responsible for "BlackBerry United States," on information and belief, BlackBerry Corporation also has taken active steps to encourage end users of the BlackBerry DTEK60 to use the product in the United States in a manner it knows will directly infringe each element of claim 35 of the '667 patent as described above in paragraphs 87-88, including by encouraging users to utilize the BlackBerry DTEK60 to make use of machine-to-machine communications over LTE data networks despite knowing of the '667 patent and the fact that such data communications that may be subject to a back-off timer will cause an end user.

96. Such active steps include, for example, advertising and marketing the BlackBerry DTEK60 as a smartphone capable of using machine-to-machine applications on an LTE data network and instructing BlackBerry DTEK60 users how to utilize the BlackBerry DTEK60 to use such applications on such data networks in the written manuals it has provided, and continues to provide, despite its knowledge of the '667 patent and the fact that the use of such applications to make communications causes BlackBerry DTEK60 users to directly infringe the '667 patent. *See, e.g.*, <https://help.blackberry.com/en/dtek60/current/user-guide-pdf/DTEK60-6.0-User-Guide-en.pdf> (instructing users at pages 11-12 on the use of checking email messages

or text messages, and at page 91 on how to use particular apps to obtain weather updates, or updates to a user's agenda, for example). In short, BlackBerry Ltd. has actively induced, and continues to actively induce the direct infringement of the '667 patent by its end users by, among other things, publishing BlackBerry DTEK60 manuals and promotional literature describing and instructing the configuration and operation by its customers of the BlackBerry DTEK60 in an infringing manner and by offering support and technical assistance to its customers that encourage use of the BlackBerry DTEK60 in ways that directly infringe claim 35 of the '667 patent.

97. Further, BlackBerry Corporation participated in the undertaking of such active steps after receiving notice of the '667 patent and its infringement of it.

98. In addition, BlackBerry has indirectly infringed and continues to indirectly infringe the '667 patent in violation 35 U.S.C. § 271(c) by selling or offering to sell in the United States, or importing into the United States, the '667 Accused Products with knowledge that they are especially designed or adapted to operate in a manner that infringes the '667 patent and despite the fact that the infringing technology or aspects of each '667 Accused Products are not a staple article of commerce suitable for substantial non-infringing use.

99. For example, both BlackBerry Ltd. and BlackBerry Corporation knew by at least October 28, 2015, that the functionality included in the '667 Accused Products that enabled each to comply with the standards for LTE communications regarding back-off timers and machine-to-machine communications infringes the '667 patent. Further, on information and belief, BlackBerry Ltd. and BlackBerry Corporation knew that the '667 Accused Products, including the BlackBerry DTEK60, were designed to ensure that they would be interoperable with standard

LTE data networks, including in the manner in which it utilized back-off timers to facilitate machine-to-machine communications.

100. Further, on information and belief, the infringing aspects of the '667 Accused Products can only be used in a manner that infringes the '667 patent and have no substantial non-infringing uses. Again using the BlackBerry DTEK60 as an example, the product includes the components and functionality described above at paragraph 66 specifically so that it can comply with back-off timers for machine-to-machine communications in accordance with the invention claimed in the '667 patent in order to be interoperable with standard data networks. The infringing aspects of the BlackBerry DTEK60 otherwise have no meaningful use, let alone any meaningful non-infringing use.

101. In addition, BlackBerry's infringement of the '667 patent was willful. At least by October 28, 2015, BlackBerry Ltd. and BlackBerry Corporation had received notice of the '667 patent and notice that the '667 Accused Products infringe the '667 patent. Further, both BlackBerry Ltd. and BlackBerry Corporation were provided claim charts showing how BlackBerry's LTE and UMTS devices infringed the '667 patent. Each also was told that the '667 patent had been recognized as essential to telecommunications standards governing the use of back-off timers and machine-to-machine communications in LTE communications. Nevertheless, without authorization, both BlackBerry Ltd. and BlackBerry Corporation continued to infringe the '667 patent in the manners described above, including by, on information and belief, selling and offering to sell in the United States, and importing into the United States, '667 Accused Products like the BlackBerry DTEK60, in order to market such products as capable of utilizing LTE data networks in order to promote the sale of those products.

102. BlackBerry's acts of infringement have caused damage to KPN, and KPN is entitled to recover from BlackBerry the damages it has sustained as a result of BlackBerry's wrongful acts in an amount subject to proof at trial.

COUNT 3
INFRINGEMENT OF U.S. PATENT NO. 7,933,564

103. Plaintiffs repeat and incorporate by reference each preceding paragraph as if fully set forth herein and further state:

104. On April 26, 2011, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 7,933,564, which is entitled, "Method for the Multi-Antenna Transmission of a Linearly-Precoded Signal, Corresponding Devices, Signal and Reception Method." A true and correct copy of the '564 patent is attached as Exhibit C.

105. 3G Licensing is the owner by assignment from Orange of the '564 patent and holds the sole right to sue and recover for any and all infringements.

106. The devices claimed in the '564 patent have proved to be of great importance to the field of multi-antenna transmission and reception. For example, claims of the '564 Patent have been found essential to 3GPP TS 36.211 v8.7.0: Section 6.3. 6.3.2. 6.3.3. 6.3.3.3. 6.3.4, 6.3.4.3-Figure 6.3 -1; Table 6.3.3.3-1 (ISLD-201607-001).

107. Consistent with this recognition of its importance to the field of multiple input and multiple output transmission and reception, the '564 patent has been licensed extensively by many of BlackBerry's mobile technology competitors.

108. BlackBerry has directly infringed and continues to directly infringe the '564 patent in violation 35 U.S.C. § 271(a) by making, using, selling, and/or offering for sale in the United States, and/or importing into the United States, without authorization, products that practice at least claim 13 and, when used, claim 1 of the '564 patent literally or under the

doctrine of equivalents (hereafter “’564 Accused Products”). At a minimum, such ’564 Accused Products include all BlackBerry smartphones and other devices and technology that utilize Multiple-Input-Multiple-Output (MIMO) antennas to receive or transmit information over an LTE network as described in Ex. C. This includes products like the BlackBerry DTEK60, which, on information and belief, includes multiple antennas for transmission and reception on an LTE network.

109. For example, as detailed in paragraphs 110-113 below, on information and belief, the BlackBerry DTEK60 is an LTE compatible device that meets every element of at least claim 13 and, when used, claim 1 of the ’564 patent literally or under the doctrine of equivalents.³ Further, on information and belief, the identified components and functionality of the BlackBerry DTEK60 are representative of the components and functionality present in all ’564 Accused Products.

110. Claim 1 of the ’564 patent is illustrative of the method claims of the ’564 patent. It recites a method for sending a signal formed by vectors, each vector comprising N source symbols to be sent, and implementing M transmit antennas where M is greater than or equal to 2, the method comprising linearly precoding said signal, implementing a matrix product of a source matrix, formed by said vectors organized in successive rows, by a linear precoding matrix, delivering a precoded matrix, and sending precoded vectors corresponding to columns of said precoded matrix successively, wherein each precoded vector has M symbols, which have undergone a precoding by a same column of the linear precoding matrix and are distributed over said M antennas.

³ This description of BlackBerry’s infringement of the ’564 patent is illustrative and not intended to be an exhaustive or limiting explanation of every manner in which each ’564 Accused Product infringes the ’564 patent.

111. On information and belief, any use of the DTEK60 to connect to an LTE data network causes the DTEK60 to perform the method disclosed by claim 1 of the '564 patent. On information and belief, the DTEK60 includes the Qualcomm MSM8996 Snapdragon 820 processor, which on connecting to an LTE data network interacts with technology in the DTEK60 to implement Multiple-Input-Multiple-Output (MIMO) antennas to send a common reference signal that is formed from several different sources which is mapped into layers to form a signal that is transmitted through two or more antennas through the antenna ports. On information and belief, the DTEK60 precodes the signal, such as by implementing the product of a source matrix formed by vectors organized in successive rows. On information and belief, the DTEK60 sends precoded vectors corresponding to columns of the precoded matrix successively. Each precoded vector has M symbols. On information and belief, the DTEK60 precodes by the same column of the linear precoding matrix that are distributed over M antennas. For example, the DTEK60 uses open loop transmit diversity during uplink (transmit) distributed over 2 or more antenna ports.

112. Claim 13 of the '564 patent is illustrative of the device claims of the '564 patent. It recites a device for receiving a signal sent on M transmit antennas, where M is greater than or equal to 2, said device comprising: P receiver antennas, where P is greater than or equal to 2, means of reception, on said P antennas, of reception vectors, and means of distribution by columns of said reception vectors in a reception matrix, wherein each reception vector comprises P received symbols distributed on said P receiver antennas and corresponding symbols having undergone a precoding by a same column of a linear precoding matrix at sending, and means of processing of said reception matrix, comprising means of multiplying by a linear de-precoding

matrix representing the linear precoding matrix used at sending, so as to obtain a de-precoded matrix by which it is possible to extract an estimation of source symbols sent.

113. On information and belief, as claimed by claim 13 of the '564 patent, the DTEK60 is a device that receives signals sent over an LTE communications network on at least two transmit antennas. On information and belief, the DTEK60 includes at least two receiver antennas and a Qualcomm MSM8996 Snapdragon 820 processor. On information and belief, the processor in the DTEK60, combined with other hardware and software in the DTEK60, distributes by columns the reception vectors in a reception matrix. On information and belief, the reception vector comprises two received symbols distributed on the at least two receiver antennas in the DTEK60. On information and belief, the corresponding symbols having undergone a precoding by the same column of a linear precoding matrix when the vector was sent over the LTE communications network. On information and belief, the processor in the DTEK60, combined with other hardware and software in the DTEK60, processes the reception matrix, comprising means of multiplying by a linear de-precoding matrix representing the linear precoding matrix used at sending, so as to obtain a de-precoded matrix by which it is possible to extract an estimation of the source symbols sent on the LTE communications network.

114. On information and belief, BlackBerry Ltd. therefore has directly infringed, and continues to directly infringe, each element of at least claim 1 of the '564 patent by through the actions of its agents and employees, including by testing and demonstrating its operation in the United States, using without authorization, '564 Accused Products like the BlackBerry DTEK60.

115. On information and belief, BlackBerry Ltd. therefore has directly infringed, and continues to directly infringe, each element of at least claim 13 of the '564 patent by selling, and

offering to sell in the United States, and by importing into the United States, without authorization, '564 Accused Products like the BlackBerry DTEK60.

116. On information and belief, as the entity identified by BlackBerry Ltd. as being responsible for "BlackBerry United States," BlackBerry Corporation also has directly infringed, and continues to directly infringe, each element of at least claim 1 of the '564 patent by through the actions of its agents and employees, including by testing and demonstrating its operation in the United States, using without authorization, '564 Accused Products like the BlackBerry DTEK60.

117. Further, on information and belief, as the entity identified by BlackBerry Ltd. as being responsible for "BlackBerry United States," BlackBerry Corporation also has directly infringed, and continues to directly infringe, each element of at least claim 13 of the '564 patent by selling and offering to sell in the United States, and by importing into the United States, without authorization, '564 Accused Products like the BlackBerry DTEK60.

118. In addition, BlackBerry has indirectly infringed and continues to indirectly infringe the '564 patent in violation 35 U.S.C. § 271(b) by taking active steps to encourage and facilitate direct infringement by third parties, including OEMs, partners, service providers, manufacturers, importers, resellers, customers, and/or end users, in this District and elsewhere in the United States, through the dissemination of the '564 Accused Products and the creation and dissemination of promotional and marketing materials, supporting materials, instructions, product manuals, and/or technical information relating to such products with knowledge and the specific intent that its efforts will result in the direct infringement of the '564 patent.

119. For example, BlackBerry Ltd. has taken active steps to encourage end users of the BlackBerry DTEK60 to use the product in the United States in a manner it knows will directly

infringe each element of at least claims 1 and 13 of the '564 patent as described above in paragraphs 110-113, including by encouraging users to utilize the BlackBerry DTEK60 to transmit data over LTE data networks despite knowing of the '564 patent and the fact that such data transmissions will cause an end user to use the BlackBerry DTEK60 in a manner that infringes the '564 patent.

120. Such active steps include, for example, advertising and marketing the BlackBerry DTEK60 as a smartphone capable of transmitting data on an LTE data network and instructing BlackBerry DTEK60 users how to utilize the BlackBerry DTEK60 to transmit data on such data networks in the written manuals it has provided, and continues to provide, despite its knowledge of the '564 patent and the fact that such data transmissions cause BlackBerry DTEK60 users to directly infringe the '564 patent. *See, e.g.*, <https://help.blackberry.com/en/dtek60/current/user-guide-pdf/DTEK60-6.0-User-Guide-en.pdf> (instructing users at pages 22-24 and 26-30 how to connect to an LTE network and transmit data over such networks). In short, BlackBerry Ltd. has actively induced, and continues to actively induce the direct infringement of the '564 patent by its end users by, among other things, publishing BlackBerry DTEK60 manuals and promotional literature describing and instructing the configuration and operation by its customers of the BlackBerry DTEK60 in an infringing manner and by offering support and technical assistance to its customers that encourage use of the BlackBerry DTEK60 in ways that directly infringe at least claims 1 and 13 of the '564 patent.

121. Further, BlackBerry Ltd. undertook such active steps despite receiving notice of the '564 patent and its infringement at least by June 6, 2016.

122. In addition, as the entity identified by BlackBerry Ltd. as being responsible for "BlackBerry United States," on information and belief, BlackBerry Corporation also has taken

active steps to encourage end users of the BlackBerry DTEK60 to use the product in the United States in a manner it knows will directly infringe each element of at least claims 1 and 13 of the '564 patent as described above in paragraphs 110-113, including by encouraging users to utilize the BlackBerry DTEK60 to transmit data over LTE data networks despite knowing that such data transmissions will cause an end user to use the BlackBerry DTEK60 in a manner that infringes the '564 patent.

123. On information and belief, such active steps include, for example, advertising and marketing the BlackBerry DTEK60 as a smartphone capable of transmitting data on an LTE data network and instructing BlackBerry DTEK60 users how to utilize the BlackBerry DTEK60 to transmit data on such data networks in the written manuals it has provided, and continues to provide, despite its knowledge of the '564 patent and the fact that such data transmissions cause BlackBerry DTEK60 users to directly infringe the '564 patent. *See, e.g.*, <https://help.blackberry.com/en/dtek60/current/user-guide-pdf/DTEK60-6.0-User-Guide-en.pdf> (instructing users at pages 22-24 and 26-30 how to connect to an LTE network and transmit data over such networks). In short, BlackBerry Ltd. has actively induced, and continues to actively induce the direct infringement of the '564 patent by its end users by, among other things, publishing BlackBerry DTEK60 manuals and promotional literature describing and instructing the configuration and operation by its customers of the BlackBerry DTEK60 in an infringing manner and by offering support and technical assistance to its customers that encourage use of the BlackBerry DTEK60 in ways that directly infringe at least claims 1 and 13 of the '564 patent.

124. Further, BlackBerry Corporation participated in the undertaking of such active steps despite receiving notice of the '564 patent and its infringement at least by June 6, 2016.

125. In addition, BlackBerry has indirectly infringed and continues to indirectly infringe the '564 patent in violation 35 U.S.C. § 271(c) by selling or offering to sell in the United States, or importing into the United States, the '564 Accused Products with knowledge that they are especially designed or adapted to operate in a manner that infringes the '564 patent and despite the fact that the infringing technology or aspects of each '564 Accused Products are not a staple article of commerce suitable for substantial non-infringing use.

126. For example, both BlackBerry Ltd. and BlackBerry Corporation knew at least by June 6, 2016, that the functionality included in the '564 Accused Products that enabled each to perform MIMO transmission and reception in accordance with the standard for LTE communications infringes the '564 patent. Further, on information and belief, BlackBerry Ltd. and BlackBerry Corporation knew that the '564 Accused Products, including the BlackBerry DTEK60, were designed to ensure that they would be interoperable with standard LTE data networks, which infringe the '564 patent.

127. Further, on information and belief, the infringing aspects of the '564 Accused Products can only be used in a manner that infringes the '564 patent and thus have no substantial non-infringing uses. Again using the BlackBerry DTEK60 as an example, the product includes the components and functionality described above at paragraphs 110-113 specifically so that it can send and receive transmissions using multiple antennas in accordance with the invention claimed in the '564 patent in order to be interoperable with standard LTE data networks. The infringing aspects of the BlackBerry DTEK60 otherwise have no meaningful use, let alone any meaningful non-infringing use.

128. In addition, BlackBerry's infringement of the '564 patent was willful. At least by June 6, 2016, both BlackBerry Ltd. and BlackBerry Corporation had received notice of the '564

patent, and information regarding why the '564 Accused Products infringe the '564 patent, including being told that the '564 patent had been recognized as essential to various standards governing the use of multiple antennas to transmit or receive data in an LTE network. Nevertheless, without authorization, both BlackBerry Ltd. and BlackBerry Corporation continued to infringe the '564 patent in the manners described above, including by, on information and belief, selling and offering to sell in the United States, and importing into the United States, '564 Accused Products like the BlackBerry DTEK60, in order to market such products as capable of utilizing LTE data networks in order to promote the sale of those products.

129. BlackBerry's acts of infringement have caused damage to 3G Licensing, and 3G Licensing is entitled to recover from BlackBerry the damages it has sustained as a result of BlackBerry's wrongful acts in an amount subject to proof at trial.

COUNT 4
INFRINGEMENT OF U.S. PATENT NO. 7,995,091

130. Plaintiffs repeat and incorporate by reference each preceding paragraph as if fully set forth herein and further state:

131. On August 9, 2011, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 7,995,091, which is entitled, "Mixed Media Telecommunication Call Manager." A true and correct copy of the '091 patent is attached as Exhibit D.

132. 3G Licensing is the owner by assignment from Orange of the '091 patent and holds the sole right to sue and recover for any and all infringements.

133. The inventions claimed in the '091 patent have proved to be of great importance to the field of mixed media telecommunications, including the discontinuation of video calls. For example, claims of the '091 patent have been declared essential to 3GPP TS 23.228 V8.12.0

Section 4.0, 4.16.1, 4.16.2, 5.4.4. Annex E, E.0, E.2.1a.1, E.2.1a.2, E.2.4.0, E.2.4.1, Figure E 3GPP TS 23.401 V8.17.0 Section 4.7.1, 4.7.2.2, and Figure 4.7.2.2-1. (ISLD-201308-0029 ISLD-201308-0030 ISLD-201308-0031).

134. BlackBerry has directly infringed and continues to directly infringe the '091 patent in violation 35 U.S.C. § 271(a) by making, using, selling, and/or offering for sale in the United States, and/or importing into the United States, without authorization, products that practice at least claim 1 and, when used, claim 8 of the '091 patent literally or under the doctrine of equivalents (hereafter "'091 Accused Products"). At a minimum, such '091 Accused Products include all BlackBerry smartphones and other devices and technology configured to conduct and discontinue videocalls in compliance with the LTE standard, as described in Ex. A. This includes products like the BlackBerry DTEK60, which, on information and belief, is configured to perform videocalls in compliance with the LTE standards.

135. For example, as detailed in paragraphs 136-139 below, on information and belief, the BlackBerry DTEK60 is an LTE compatible device that meets every element of at least at least claim 1 and, when used, claim 8 of the '091 patent literally or under the doctrine of equivalents.⁴ Further, on information and belief, the identified components and functionality of the BlackBerry DTEK60 are representative of the components and functionality present in all '091 Accused Products, including but not limited to the BlackBerry DTEK50, the BlackBerry PRIV, the BlackBerry Leap, the BlackBerry Classic (Non Camera), the BlackBerry Porsche Design P'9983, the BlackBerry Passport, the BlackBerry Classic, the BlackBerry Z3, the BlackBerry Porsche Design P'9982, the BlackBerry Z30, the BlackBerry 9720, the BlackBerry

⁴ This description of BlackBerry's infringement of the '091 patent is illustrative and not intended to be an exhaustive or limiting explanation of every manner in which each '091 Accused Product infringes the '091 patent.

Q5, the BlackBerry Z10, the BlackBerry Q10, the BlackBerry 4G LTE Playbook, the BlackBerry Curve 9320, the BlackBerry Storm2 9550, the BlackBerry Curve 9220, the BlackBerry Curve 9380, the BlackBerry Bold 9790, the BlackBerry Porsche Design P'9981, the BlackBerry Curve 9370, the BlackBerry Curve 9360, the BlackBerry Curve 9350, the BlackBerry Torch 9810, the BlackBerry Torch 9860, the BlackBerry Torch 9850, the BlackBerry Bold Touch 9900, the BlackBerry Bold Touch 9930, the BlackBerry 4G Playbook HSPA+, the BlackBerry Playbook Wimax, the BlackBerry Playbook, the BlackBerry Bold 9780, the BlackBerry Style 9670, the BlackBerry Curve 3G 9330, and the BlackBerry Curve 3G 9300.

136. Claim 1 of the '091 patent is illustrative of the device claims of the '091 patent. It recites a videophone responsive to the discontinuation of an in progress mixed media telecommunications call, the videophone comprising: a radio frequency (RF) interface configured to communicate via a radio telecommunications network; a transmitter configured to transmit data carrying at least a first and second media to a remote videophone during a first call; and a processor in communication with the RF interface configured to receive an indication, via the RF interface, that the transmission of data to the remote videophone in the first call is being discontinued, the processor further being configured to, in response to the indication, initiate a second call to the remote videophone, the second call not supporting the second media.

137. On information and belief, the DTEK60 is a mobile phone that functions as a videophone and that interfaces with a radio frequency telecommunications network. On information and belief, the DTEK60 is configured to transmit data carrying at least a first media, such as audio, and a second media, such as video, to a remote videophone during a first video call conversation. On information and belief, the DTEK60 includes a processor, such as the Qualcomm MSM8996 Snapdragon 820, that is in communication with the DTEK60's RF

interface. On information and belief, the processor in the DTEK60 receives an indication from the RF interface that the transmission of data to the remote videophone in the first call is being discontinued. As a non-limiting example, the DTEK60 receives a CS Service Notification from the network's Mobility Management Entity (MME), which indicates to the DTEK60 that the current data transmission to the remote video is to be discontinued because the DTEK60 is required to switch to another network connection, and which is followed in response by a second call to the remote videophone, such as by performing a circuit switch fallback or transition to the 3G communication network from the LTE network. On information and belief the processor in the DTEK60 is further configured to, in response to the indication, initiate a second call to the remote videophone. On information and belief, the second call (i.e. the circuit switched voice call) does not support video or graphics.

138. Claim 8 of the '091 patent is illustrative of the method claims of the '091 patent. It recites a method of responding to the discontinuation of an in progress mixed media telecommunications call by a videophone having a radio frequency interface to a radio frequency telecommunications network, the method comprising: transmitting, via the radio frequency telecommunications network, data carrying at least a first and second media to a remote videophone during a first call; receiving, via the radio frequency interface, an indication that the transmission of data to the remote videophone in the first call is being discontinued; and initiating a second call to the remote videophone, in response to the indication, the second call not supporting the second media.

139. On information and belief, use of the DTEK60 to conduct a videocall performs a method of responding to the discontinuation of an in-progress mixed media telecommunications call, at least by way of video calling applications on the DTEK60, which interface with a radio

frequency telecommunications network. On information and belief, the DTEK60 transmits data using a radio frequency to the telecommunication network of the cellular service provider. On information and belief, the DTEK60 carries at least a first media, such as audio, and a second media, such as video, during a first video call conversation. As a non-limiting example, the DTEK60 uses the voice over internet protocol (VOIP) for communication of audio and video data with another smartphone during a video call. On information and belief, the DTEK60 receives via the radio frequency interface an indication that the transmission of data to the remote videophone of the first call is being discontinued. As a non-limiting example, the DTEK60 receives a CS Service Notification from the network's Mobility Management Entity (MME), which indicates to the DTEK60 that the current data transmission to the remote video is to be discontinued because the DTEK60 is required to switch to another network connection, and which is followed in response by a second call to the remote videophone, such as by performing a circuit switch fallback or transition to the 3G communication network from the LTE network. On information and belief, the second call (i.e. the circuit switched voice call) does not support video or graphics.

140. On information and belief, BlackBerry Ltd. therefore has directly infringed, and continues to directly infringe, each element of at least claim 1 of the '091 patent by selling and offering to sell in the United States, and by importing into the United States, without authorization, '091 Accused Products like the BlackBerry DTEK60.

141. On information and belief, BlackBerry Ltd. therefore has directly infringed, and continues to directly infringe, each element of at least claim 8 of the '091 patent by, through the actions of its agents and employees, including by testing and demonstrating its operation in the United States, using without authorization, '091 Accused Products like the BlackBerry DTEK60.

142. On information and belief, as the entity identified by BlackBerry Ltd. as being responsible for “BlackBerry United States,” BlackBerry Corporation also has directly infringed, and continues to directly infringe, each element of at least claim 1 of the ’091 patent by selling and offering to sell in the United States, and by importing into the United States, without authorization, ’091 Accused Products like the BlackBerry DTEK60.

143. On information and belief, as the entity identified by BlackBerry Ltd. as being responsible for “BlackBerry United States,” BlackBerry Corporation also has directly infringed, and continues to directly infringe, each element of at least claim 8 of the ’091 patent by, through the actions of its agents and employees, including by testing and demonstrating its operation in the United States, using without authorization, ’091 Accused Products like the BlackBerry DTEK60.

144. In addition, BlackBerry has indirectly infringed and continues to indirectly infringe the ’091 patent in violation 35 U.S.C. § 271(b) by taking active steps to encourage and facilitate direct infringement by third parties, including OEMs, partners, service providers, manufacturers, importers, resellers, customers, and/or end users, in this District and elsewhere in the United States, through the dissemination of the ’091 Accused Products and the creation and dissemination of promotional and marketing materials, supporting materials, instructions, product manuals, and/or technical information relating to such products with knowledge and the specific intent that its efforts will result in the direct infringement of the ’091 patent.

145. For example, BlackBerry Ltd. has taken active steps to encourage end users of the BlackBerry DTEK60 to use the product in the United States in a manner it knows will directly infringe each element of at least claim 1 and, when used, claim 8 of the ’091 patent as described above in paragraphs 136-139, including by encouraging users to utilize the BlackBerry DTEK60

to conduct videocall communications over LTE data networks despite knowing of the '091 patent and the fact that such communications will cause an end user to use the BlackBerry DTEK60 in a manner that infringes the '091 patent.

146. Such active steps include, for example, advertising and marketing the BlackBerry DTEK60 as a smartphone capable of conducting and discontinuing videocalls on an LTE data network and instructing BlackBerry DTEK60 users how to utilize the BlackBerry DTEK60 to conduct and discontinue videocalls on such data networks in the written manuals it has provided, and continues to provide, despite its knowledge of the '091 patent and the fact that such videocalls cause BlackBerry DTEK60 users to directly infringe the '091 patent. *See, e.g.*, <https://help.blackberry.com/en/dtek60/current/user-guide-pdf/DTEK60-6.0-User-Guide-en.pdf> (instructing users at pages 22-24 how to make a video call on an LTE network). In short, BlackBerry Ltd. has actively induced, and continues to actively induce the direct infringement of the '091 patent by its end users by, among other things, publishing BlackBerry DTEK60 manuals and promotional literature describing and instructing the configuration and operation by its customers of the BlackBerry DTEK60 in an infringing manner and by offering support and technical assistance to its customers that encourage use of the BlackBerry DTEK60 in ways that directly infringe at least claims 1 and 8 of the '091 patent.

147. Further, BlackBerry Ltd. undertook such active steps after receiving notice of the '091 patent and its infringement by at least June 1, 2015.

148. In addition, as the entity identified by BlackBerry Ltd. as being responsible for "BlackBerry United States," on information and belief, BlackBerry Corporation also has taken active steps to encourage end users of the BlackBerry DTEK60 to use the product in the United States in a manner it knows will directly infringe each element of at least claims 1 and 8 of the

'091 patent as described above in paragraphs 136-139, including by encouraging users to utilize the BlackBerry DTEK60 to conduct video calls over LTE data networks despite knowing that such video calls will cause an end user to use the BlackBerry DTEK60 in a manner that infringes the '091 patent.

149. Such active steps include, for example, advertising and marketing the BlackBerry DTEK60 as a smartphone capable of conducting and discontinuing videocalls on an LTE data network and instructing BlackBerry DTEK60 users how to utilize the BlackBerry DTEK60 to conduct and discontinue videocalls on such data networks in the written manuals it has provided, and continues to provide, despite its knowledge of the '091 patent and the fact that such videocalls cause BlackBerry DTEK60 users to directly infringe the '091 patent. *See, e.g.*, <https://help.blackberry.com/en/dtek60/current/user-guide-pdf/DTEK60-6.0-User-Guide-en.pdf> (instructing users at pages 22-24 how to make a video call on an LTE network). In short, BlackBerry Ltd. has actively induced, and continues to actively induce the direct infringement of the '091 patent by its end users by, among other things, publishing BlackBerry DTEK60 manuals and promotional literature describing and instructing the configuration and operation by its customers of the BlackBerry DTEK60 in an infringing manner and by offering support and technical assistance to its customers that encourage use of the BlackBerry DTEK60 in ways that directly infringe at least claims 1 and 8 of the '091 patent.

150. Further, BlackBerry Corporation participated in the undertaking of such active steps after receiving notice of the '091 patent and its infringement by at least June 1, 2015.

151. In addition, BlackBerry has indirectly infringed and continues to indirectly infringe the '091 patent in violation 35 U.S.C. § 271(c) by selling or offering to sell in the United States, or importing into the United States, the '091 Accused Products with knowledge that they

are especially designed or adapted to operate in a manner that infringes the '091 patent and despite the fact that the infringing technology or aspects of each '091 Accused Products are not a staple article of commerce suitable for substantial non-infringing use.

152. For example, both BlackBerry Ltd. and BlackBerry Corporation knew at least by June 1, 2015, that the functionality included in the '091 Accused Products that enabled each to conduct and discontinue videocalls in accordance with the standard for LTE communications infringes the '091 patent. Further, on information and belief, BlackBerry Ltd. and BlackBerry Corporation knew that the '091 Accused Products, including the BlackBerry DTEK60, were designed to ensure that they would be interoperable with standard LTE data networks in a manner that would infringe the '091 patent.

153. Further, on information and belief, the infringing aspects of the '091 Accused Products can only be used in a manner that infringes the '091 patent and thus have no substantial non-infringing uses. Again using the BlackBerry DTEK60 as an example, the product includes the components and functionality described above at paragraphs 136-139 specifically so that it can conduct and discontinue videocalls in accordance with the invention claimed in the '091 patent in order to be interoperable with standard LTE data networks. The infringing aspects of the BlackBerry DTEK60 otherwise have no meaningful use, let alone any meaningful non-infringing use.

154. In addition, BlackBerry's infringement of the '091 patent was willful. At least by June 1, 2015, both BlackBerry Ltd. and BlackBerry Corporation had received not just notice of the '091 patent, but also information as to why the '091 Accused Products infringe the '091 patent, including that the '091 patent had been recognized as essential to conducting and discontinuing videocalls in an LTE network. Nevertheless, without authorization, both

BlackBerry Ltd. and BlackBerry Corporation continued to infringe the '091 patent in the manners described above, including by, on information and belief, selling and offering to sell in the United States, and importing into the United States, '091 Accused Products like the BlackBerry DTEK60, in order to market such products as capable of conducting and discontinuing videocalls on LTE data networks in order to promote the sale of those products

155. BlackBerry's acts of infringement have caused damage to 3G Licensing, and 3G Licensing is entitled to recover from BlackBerry the damages it has sustained as a result of BlackBerry's wrongful acts in an amount subject to proof at trial.

COUNT 5
INFRINGEMENT OF U.S. PATENT NO. 6,856,818

156. Plaintiffs repeat and incorporate by reference each preceding paragraph as if fully set forth herein and further state:

157. On February 15, 2005, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 6,856,818, which is entitled, "Data store for mobile radio station." A true and correct copy of the '818 patent is attached as Exhibit E.

158. 3G Licensing is the owner by assignment from Orange of the '818 patent and holds the sole right to sue and recover for any and all infringements.

159. The devices claimed in the '818 patent have proved to be of great importance to the telecommunications field by allowing selective access to data stored on a subscriber identity module. For example, claims of the '818 Patent have been found essential to 3GPP TS 21.111 V7.1.0 , Section 1, 4, 5.1, 5.2, 6.1 and 11.2 Document 3GPP TS 31.102 V7.13.0 , Section 4.4.2, 4.7, 5.1.1.1 and 5.3.29 ; Figure 4.2 3GPP TS 31.101 V7.0.1 , Section 8.1 ETSI TS 102.221 V7.4.0 , Section 8.2.2.2, 8.4.1, 8.4.3, 11.1.1.1, 11.1.3.1, 11.1.5.1, 11.1.5.2, Annex K and K.2 ;

Figure 8.2, 8.4 and K.1 ; Table 8.1 and 11.11 (ISLD-201011-001, ISLD-201011-002, ISLD-201011-003, ISLD-201011-004).

160. BlackBerry has directly infringed and continues to directly infringe the '818 patent in violation 35 U.S.C. § 271(a) by making, using, selling, and/or offering for sale in the United States, and/or importing into the United States, without authorization, products that practice at least claim 18 of the '818 patent literally or under the doctrine of equivalents (hereafter "'818 Accused Products"). At a minimum, such '818 Accused Products include all BlackBerry smartphones and other devices and technology configured to select from multiple subscriber profiles, including but not limited to being compatible with a Universal Subscriber Identity Module (USIM) or a Universal Integrated Circuit Card (UICC), in accordance with the LTE, UMTS, or cdma2000 standards as described in Ex. E. This includes products like the BlackBerry DTEK60, which, on information and belief, is configured to be compatible with USIM and/or UICC cards.

161. For example, as detailed in paragraphs 162-163 below, on information and belief, the BlackBerry DTEK60 comprises a modified subscriber data storage module that meets every element of claim 18 of the '818 patent literally or under the doctrine of equivalents.⁵ Further, on information and belief, the identified components and functionality of the BlackBerry DTEK60 are representative of the components and functionality present in all '818 Accused Products, including but not limited to the following: the BlackBerry DTEK50, the BlackBerry PRIV, the BlackBerry Leap, the BlackBerry Classic (Non Camera), the BlackBerry Porsche Design P'9983, the BlackBerry Passport, the BlackBerry Classic, the BlackBerry Z3, the BlackBerry Porsche

⁵ This description of BlackBerry's infringement of the '818 patent is illustrative and not intended to be an exhaustive or limiting explanation of every manner in which each '818 Accused Product infringes the '818 patent.

Design P'9982, the BlackBerry Z30, the BlackBerry 9720, the BlackBerry Q5, the BlackBerry Z10, the BlackBerry Q10, the BlackBerry 4G LTE Playbook, the BlackBerry Curve 9320, the BlackBerry Curve 9220, the BlackBerry Curve 9380, the BlackBerry Bold 9790, the BlackBerry Porsche Design P'9981, the BlackBerry Curve 9370, the BlackBerry Curve 9360, the BlackBerry Curve 9350, the BlackBerry Torch 9810, the BlackBerry Torch 9860, the BlackBerry Torch 9850, the BlackBerry Bold Touch 9900, the BlackBerry Bold Touch 9930, the BlackBerry 4G Playbook HSPA+, the BlackBerry Playbook Wimax, the BlackBerry Playbook, the BlackBerry Bold 9780, the BlackBerry Style 9670, the BlackBerry Curve 3G 9330, the BlackBerry Curve 3G 9300, the BlackBerry Torch 9800, the BlackBerry Pearl 3G 9105, the BlackBerry Pearl 3G 9100, and the BlackBerry Bold 9650.

162. Claim 18 of the '818 patent is illustrative of the device claims of the '818 patent. It recites a mobile station for use in a mobile communications system, the mobile station complying with a predetermined standard and being adapted, in accordance with the standard, to transmit a first memory access message, identifying a specific data record, in order to access the specific data record on a standard subscriber data storage module complying with the predetermined standard, the mobile station comprising: a modified subscriber data storage module which includes a processor for performing operations and memory having data records for storing data, the modified module being responsive to the first memory access message, identifying the specific data record, wherein the memory holds a plurality of data records corresponding to the specific data record and the processor is arranged to select one data record, from the plurality of data records, to access in response to the first memory access message, the selection being performed on the basis of data identifying a current operational condition of the

mobile station and independently of the content of the first memory access message, the identifying data being held in a further data record in the memory means.

163. On information and belief, the DTEK60 is a mobile station for use in a mobile communications system. On information and belief, the DTEK60 complies with predetermined standards, including the LTE, UMTS, and cdma2000 standards (including but not limited to 3GPP TS 31.101, TS 31.102, TS 102.221). On information and belief, the DTEK60 accesses a memory record and transmits the memory access message by identifying a specific data record access, at least by way of its compliance with TS 102.221. On information and belief, the DTEK60 accesses data from the Universal Subscriber Identity Module (USIM and/or UICC), at least by way of its compliance with TS 102.221. On information and belief, the DTEK60 contains a modified subscriber data storage module, such as a USIM and/or UICC card, which includes a processor for performing operations and memory having data records for storing data, at least through its compliance with TS 102.221. On information and belief, the DTEK60 includes a modified module responsive to the first memory access message, such as a USIM and/or UICC card, identifying the specific data record read the record from the UICC, at least by way of its compliance with TS 102.221. On information and belief, the DTEK60 has memory, such as on a USIM and/or UICC card, to hold a plurality of data records corresponding to the specific data records, for example at least through its compliance with TS 121.111 and TS 102.221. On information and belief, the DTEK60 has a processor, such as a USIM and/or UICC card, arranged to select one data record, from the plurality of data records, to access in response to the first memory access message, at least through its compliance with TS 102.221. On information and belief, the DTEK60 performs selection on the basis of data identifying a current operational condition of the mobile station independent of the content of the first memory access

message, at least because the identifying data is held in the data records of the UICC. For example, the DTEK60 selects the Application Data File (ADF) at the initialization phase and stored in UICC as specified in TS 131.102 and whereby the previously selected USIM and/or UICC application is automatically selected by default operating conditions. Moreover, the DTEK60 complies with standards such as 102.221.

164. On information and belief, BlackBerry Ltd. therefore has directly infringed, and continues to directly infringe, each element of at least claim 18 of the '818 patent by selling and offering to sell in the United States, and by importing into the United States, without authorization, '818 Accused Products like the BlackBerry DTEK60.

165. On information and belief, as the entity identified by BlackBerry Ltd. as being responsible for "BlackBerry United States," BlackBerry Corporation also has directly infringed, and continues to directly infringe, each element of at least claim 18 of the '818 patent by selling and offering to sell in the United States, and by importing into the United States, without authorization, '818 Accused Products like the BlackBerry DTEK60.

166. In addition, BlackBerry has indirectly infringed and continues to indirectly infringe the '818 patent in violation 35 U.S.C. § 271(b) by taking active steps to encourage and facilitate direct infringement by third parties, including OEMs, partners, service providers, manufacturers, importers, resellers, customers, and/or end users, in this District and elsewhere in the United States, through the dissemination of the '818 Accused Products and the creation and dissemination of promotional and marketing materials, supporting materials, instructions, product manuals, and/or technical information relating to such products with knowledge and the specific intent that its efforts will result in the direct infringement of the '818 patent.

167. For example, BlackBerry Ltd. has taken active steps to encourage end users of the BlackBerry DTEK60 to use the product in the United States in a manner it knows will directly infringe each element of at least claim 18 of the '818 patent as described above in paragraphs 162-163, including by encouraging users to operate the BlackBerry DTEK60 in conjunction with a USIM or UICC card in order to access a specific data record from the USIM or UICC in compliance with the standard LTE, UMTS, and/or cdma2000 data networks despite knowing of the '818 patent and the fact that such usage of USIM and/or UICC cards will cause an end user to use the BlackBerry DTEK60 in a manner that infringes the '818 patent.

168. Such active steps include, for example, advertising and marketing the BlackBerry DTEK60 as a smartphone configured to select from multiple subscriber profiles, including but not limited to being compatible with a Universal Subscriber Identity Module card and instructing BlackBerry DTEK60 users how to correctly use USIM and/or UICC cards with the BlackBerry DTEK60 in the written manuals it has provided, and continues to provide, despite its knowledge of the '818 patent and the fact that such data transmissions cause BlackBerry DTEK60 users to directly infringe the '818 patent. *See, e.g.*, <https://help.blackberry.com/en/dtek60/current/user-guide-pdf/DTEK60-6.0-User-Guide-en.pdf> (instructing users at pages 6-7 how to insert a SIM card into the device and instructing users at page 29 how to change the wireless service plan with a SIM card; and instructing users at page 77 how to use a SIM card PIN to lock the SIM card). In short, BlackBerry Ltd. has actively induced, and continues to actively induce the direct infringement of the '818 patent by its end users by, among other things, publishing BlackBerry DTEK60 manuals and promotional literature describing and instructing the configuration and operation by its customers of the BlackBerry DTEK60 in an infringing manner and by offering

support and technical assistance to its customers that encourage use of the BlackBerry DTEK60 in ways that directly infringe at least claim 18 of the '818 patent.

169. Further, BlackBerry Ltd. undertook such active steps after receiving notice of the '818 patent and its infringement at least by June 1, 2015.

170. In addition, as the entity identified by BlackBerry Ltd. as being responsible for "BlackBerry United States," on information and belief, BlackBerry Corporation also has taken active steps to encourage end users of the BlackBerry DTEK60 to use the product in the United States in a manner it knows will directly infringe each element of at least claim 18 of the '818 patent as described above in paragraphs 162-163, including by encouraging to users to operate the BlackBerry DTEK60 in conjunction with a USIM or UICC card in order to access a specific data record from the USIM or UICC despite knowing that such usage will cause an end user to use the BlackBerry DTEK60 in a manner that infringes the '818 patent.

171. On information and belief, such active steps include, for example, advertising and marketing the BlackBerry DTEK60 as a smartphone configured to select from multiple subscriber profiles, including but not limited to being compatible with a Universal Subscriber Identity Module card and instructing BlackBerry DTEK60 users how to correctly users to operate the BlackBerry DTEK60 in conjunction with a USIM or UICC card in order to access a specific data record from the USIM or UICC in the written manuals it has provided, and continues to provide, despite its knowledge of the '818 patent and the fact that such data transmissions cause BlackBerry DTEK60 users to directly infringe the '818 patent. *See, e.g.,* <https://help.blackberry.com/en/dtek60/current/user-guide-pdf/DTEK60-6.0-User-Guide-en.pdf> (instructing users at pages 6-7 how to insert a SIM card into the device and instructing users at page 29 how to change the wireless service plan with a SIM card; and instructing users at page

77 how to use a SIM card PIN to lock the SIM card). In short, BlackBerry Ltd. has actively induced, and continues to actively induce the direct infringement of the '818 patent by its end users by, among other things, publishing BlackBerry DTEK60 manuals and promotional literature describing and instructing the configuration and operation by its customers of the BlackBerry DTEK60 in an infringing manner and by offering support and technical assistance to its customers that encourage use of the BlackBerry DTEK60 in ways that directly infringe at least claim 18 of the '818 patent.

172. Further, BlackBerry Corporation participated in the undertaking of such active steps after receiving notice of the '818 patent and its infringement at least by June 1, 2015.

173. In addition, BlackBerry has indirectly infringed and continues to indirectly infringe the '818 patent in violation 35 U.S.C. § 271(c) by selling or offering to sell in the United States, or importing into the United States, the '818 Accused Products with knowledge that they are especially designed or adapted to operate in a manner that infringes the '818 patent and despite the fact that the infringing technology or aspects of each '818 Accused Products are not a staple article of commerce suitable for substantial non-infringing use.

174. For example, both BlackBerry Ltd. and BlackBerry Corporation knew at least by June 1, 2015, that the functionality included in the '818 Accused Products that enabled each to be configured to select from multiple subscriber profiles, including but not limited to being compatible with a Universal Subscriber Identity Module card infringes the '818 patent. Further, on information and belief, BlackBerry Ltd. and BlackBerry Corporation knew that the '818 Accused Products, including the BlackBerry DTEK60, were designed to be configured to select from multiple subscriber profiles. In particular, they were designed with specific hardware and

software to enable the devices to read multiple subscriber information stored on a Universal Subscriber Identity Module card in a manner that would infringe the '818 patent.

175. Further, on information and belief, the infringing aspects of the '818 Accused Products can only be used in a manner that infringes the '818 patent and thus have no substantial non-infringing uses. Again using the BlackBerry DTEK60 as an example, the product includes the components and functionality described above at paragraphs 162-163 specifically so that it can select from multiple subscriber profiles, including so that it can be compatible with a Universal Subscriber Identity Module card, in accordance with the invention claimed in the '818 patent in order to be interoperable with LTE, UMTS, and/or cdma2000 data networks. The infringing aspects of the BlackBerry DTEK60 otherwise have no meaningful use, let alone any meaningful non-infringing use.

176. In addition, BlackBerry's infringement of the '818 patent was willful. At least by June 1, 2015, both BlackBerry Ltd. and BlackBerry Corporation had received not just notice of the '818 patent, but information regarding why '818 Accused Products infringe the '818 patent, including that they had been recognized by others as essential to the use of selecting multiple subscriber identities on devices in an LTE network. Nevertheless, without authorization, both BlackBerry Ltd. and BlackBerry Corporation continued to infringe the '818 patent in the manners described above, including by, on information and belief, selling and offering to sell in the United States, and importing into the United States, '818 Accused Products like the BlackBerry DTEK60, in order to market such products as capable of utilizing USIM and/or UICC cards in order to promote the sale of those products

177. BlackBerry's acts of infringement have caused damage to 3G Licensing, and 3G Licensing is entitled to recover from BlackBerry the damages it has sustained as a result of BlackBerry's wrongful acts in an amount subject to proof at trial.

DEMAND FOR JURY TRIAL

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

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs pray for judgment as follows:

A. Declaring that BlackBerry Ltd. and BlackBerry Corporation have infringed the Asserted Patents, contributed to infringement of the Asserted Patents, and/or induced infringement of the Asserted Patents;

B. Awarding damages to Plaintiffs arising out of this infringement of the Asserted Patents, including enhanced damages pursuant to 35 U.S.C. § 284 and prejudgment and post-judgment interest, in an amount according to proof;

C. Awarding attorneys' fees to Plaintiffs pursuant to 35 U.S.C. § 285 or as otherwise permitted by law;

D. Awarding such other costs and further relief as the Court may deem just and proper.

Dated: May 30, 2017

Respectfully submitted,

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