

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

KONINKLIJKE KPN N.V.,	)	
	)	
Plaintiff,	)	
	)	C.A. No. 17-cv-88-LPS-CJB
v.	)	
	)	
NEC CORPORATION and NEC CORPORATION OF AMERICA,	)	<b><u>JURY TRIAL DEMANDED</u></b>
	)	
Defendants.	)	
	)	

**SECOND AMENDED COMPLAINT FOR PATENT INFRINGEMENT**

This is an action for patent infringement in which Plaintiff Koninklijke KPN N.V. (hereafter “KPN” or “Plaintiff”) makes the following allegations against NEC Corporation and NEC Corporation of America (collectively “NEC” or “Defendants”):

**BACKGROUND**

1. KPN’s extensive research and development efforts 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 NEC’s mobile technology competitors.

2. KPN has made its patents, including the one at issue in this case, 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.

3. Prior to filing suit in this action, Plaintiff provided NEC with notice of the patent at issue and engaged in negotiations with NEC to try to resolve this dispute.

4. Despite these efforts, NEC refused to license on mutually agreeable terms the patent described herein. Plaintiff therefore files this suit against NEC seeking the Court's protection of their valuable intellectual property rights.

### **PARTIES**

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

6. Upon information and belief, Defendant NEC Corporation is a corporation organized under the laws of Japan, having a principal place of business at NEC Corporation, 7-1, Shiba 5-chome, Minato-ku, Tokyo 108-8001 Japan. NEC Communications, Inc. can be served with process pursuant to the Delaware Long Arm Statute, 10 Del. C. § 3104. NEC Corporation has stated that it acquired to rights and liabilities previously belonging to NEC Casio Mobile Communications, Ltd. On information and belief such rights and liabilities include rights and liabilities applicable to the Casio products identified herein.

7. Upon information and belief, Defendant NEC Corporation of America is a corporation organized and existing under the laws of Nevada, having a principal place of business at 3929 West John Carpenter Freeway Irving, Texas 75063. NEC Corporation of America can be served with process via its registered agent, National Registered Agents, 160 Greentree Drive, Suite 101, Dover, Delaware, 19904. On information and belief, NEC Corporation of America is a subsidiary of NEC Corporation.

8. On information and belief, Defendant NEC Corporation operates in the United States through Defendant NEC Corporation of America, which it controls and which acts as its agent in the United States.

**JURISDICTION AND VENUE**

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

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

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

12. For example, on information and belief, each NEC Defendant placed infringing products into the stream of commerce via an established distribution channel with the knowledge and expectation that such products would be sold in the State of Delaware, including in this District.

13. On information and belief, each NEC Defendant 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.

14. In addition, on information and belief, each NEC Defendant knowingly induced infringement by others within this District by advertising, marketing, offering for sale, and selling devices containing infringing functionality within this District to consumers, customers, manufacturers, distributors, resellers, partners, and end users, and by providing instructions, user manuals, advertising, and marketing materials which facilitate, direct, or encourage the use of infringing functionality with knowledge thereof.

15. Venue is proper in this District under 28 U.S.C. § 1391(b) and (c) and 28 U.S.C. § 1400.

### **THE ASSERTED PATENT**

16. This lawsuit asserts causes of action for infringement of United States Patent No. 6,212,662 (“’662 patent”).

17. The ’662 patent previously was 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.

18. 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.

19. Defendants have been on notice of the ’662 patent, have been invited to take a license to the ’662 patent, and have declined to license the ’662 patent.

20. For example, on June 9, 2011, Koenraad Wuyts, KPN’s Chief Intellectual Property Officer, met with representatives of NEC Corporation and NEC Corporation of America to discuss NEC’s need to obtain a licenses to the ’662 patent for its Long-Term Evolution radio platform (“LTE,” also commonly referred to as “4G” or “4G LTE” or “LTE-Advanced”) and UMTS (also commonly referred to as “3G,” “3G+,” or “W-CDMA”) capable products. During that meeting, KPN informed NEC that the ’662 patent had been recognized as essential to standards governing LTE and UMTS telecommunications. Mr. Wuyts subsequently

emailed Mr. Tomoko Noguchi and other NEC representatives on June 20, 2011, providing them with an additional copy of KPN's licensing proposal.

21. KPN continued to negotiate with NEC over the next several years regarding NEC obtaining a license to the '662 patent. These negotiations included, for example, a subsequent meeting on or around May 18, 2012, at which KPN reiterated that the '662 patent had been recognized as essential to standards governing LTE and UMTS telecommunications and that NEC needed to obtain a license to it for its LTE and UMTS products, which KPN told NEC was available either from KPN directly or through several identified patent pools, including the Sipro W-CDMA patent pool. Further, on September 27, 2013, Mr. Wuyts emailed multiple NEC representatives—telling them that “[f]urther to your message of March 18 last ... , please allow me to point out that the pending IPR licensing matters between our companies remain unresolved.” In the same email, Mr. Wuyts also reiterated that the '662 patent had been recognized by others as essential to standards governing LTE communications, including the 3GPP TS 36.212 standard.

22. Subsequently, on January 10, 2014, Mr. Wuyts again emailed NEC's designated representatives—telling them: “As we stated below, we think that the time has come to get clarity in the pending matter between NEC and KPN. So we hope that NEC wishes to take the opportunity to find the basis for resolving the pending IPR matter on a constructive basis ....” NEC responded the same day—telling KPN it still was reviewing the claim charts KPN had provided.

23. In addition, NEC Corporation received additional notice of the '662 patent and its respective infringement of it at least by December 24, 2015, when Nick Webb, Managing Director of Sisvel UK Limited—an entity authorized to license the '662 patent on KPN's

behalf—sent a letter to Mr. Toshio Asai, General Manager of NEC Corporation’s Intellectual Property Management Division. In this letter, Mr. Webb informed Mr. Asai that he was contacting him on behalf of several entities, including KPN, to offer a license for NEC products implementing “LTE technology. Mr. Webb told Mr. Asai that these products infringed several patents—including KPN’s ’662 patent.

24. Subsequently, and no later than January 25, 2016, Sisvel also made available on its web site a “Patent Brochure,” which specifically identified the ’662 patent and stated that Claim 1 of the ’662 patent had been recognized as essential to 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—a standard governing the transmission of data on LTE networks. On information and belief, as a result of their familiarity with Sisvel and KPN, both NEC Corporation and NEC Corporation of America reviewed this Patent Brochure on or around January 25, 2016, and had knowledge that Claim 1 of the ’662 patent had been recognized as essential to such data transmissions.

25. On information and belief, due to the interrelated nature of NEC’s operations and their joint and collective efforts to manufacture and distribute smartphones and other telecommunications products, each NEC Defendant knew or was informed of these communications, and thus knew of the ’662 patent and its infringement, prior to the expiration of the ’662 patent.

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

26. Plaintiff repeats and incorporates by reference each preceding paragraph as if fully set forth herein and further state:

27. 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.

28. 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.

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

30. 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.

31. The ’662 patent also has been treated as essential by both Sisvel, 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.

32. 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 NEC’s mobile technology competitors.

33. The ’662 patent also has been the subject of prior litigation, in which the Court construed terms expected to be at issue in this matter. Plaintiff relies on those constructions herein in support of their allegations.

34. 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 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.

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

36. Defendants directly infringed 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 NEC 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 NEC Terrain, including at least model number E6790 (hereafter “Terrain”), which, on information and belief, is configured to transmit data on LTE and UMTS data networks.

37. As detailed in paragraphs 38-42 below, on information and belief, the NEC Terrain is an LTE and UMTS compatible device that meets every element of claims 1-4 of the



'662 patent literally or under the doctrine of equivalents.<sup>1</sup> Further, on information and belief, the identified components and functionality of the NEC Terrain are representative of the components and functionality present in all '662 Accused Products, including but not limited to the Terrain, NEC 525, NEC 515, Ravine 2, Casio G'zOne CA-201L, Casio G'zOne Commando, Casio G'zOne Ravine, and Casio G'zOne Brigade.

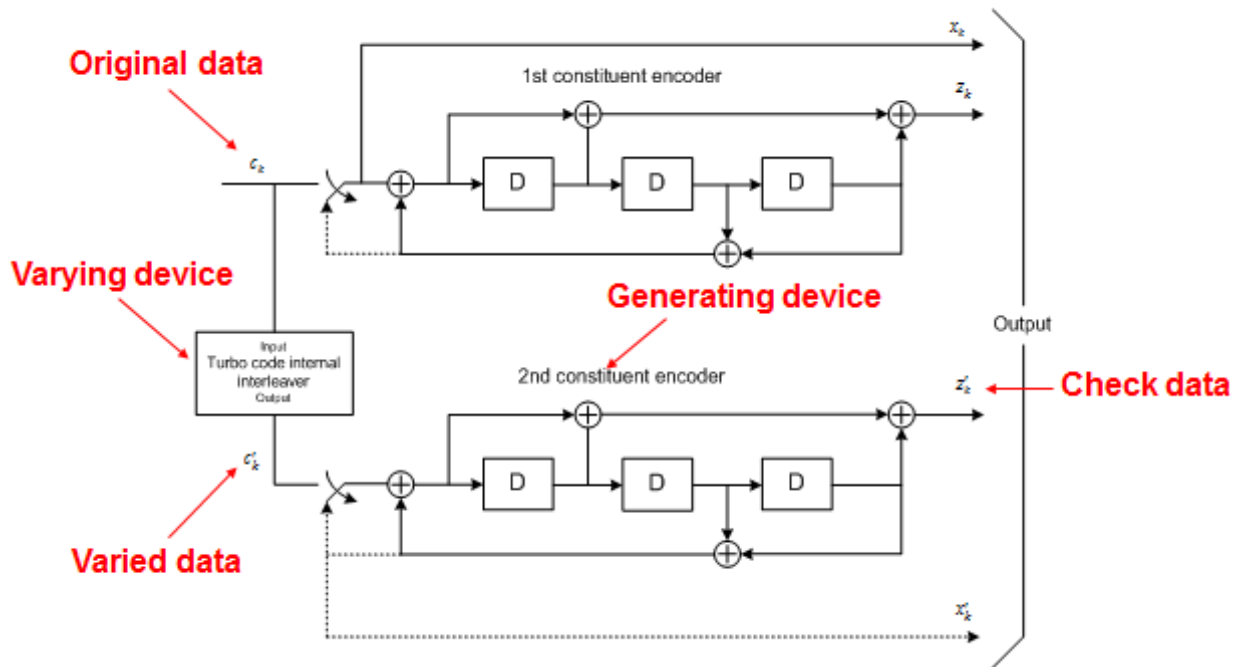
38. Claim 1 of the '662 patent is illustrative of the device claims of the '662 patent. It claims a device configured to generate supplementary data for use in checking for errors, including in transmitted data, from data provided in blocks comprised of plural bits received in a particular ordered sequence. The device 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 that now varied data 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.

39. The NEC Terrain is a device configured to operate on data provided in the form of blocks comprised of plural bits in a particular ordered sequence that can be used to generate data for error checking. The NEC Terrain also is a device configured to use such data to check for errors in such transmitted data. Further, the NEC Terrain 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

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<sup>1</sup> This description 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.

now varied data to at least one generating device. Further, the NEC Terrain includes at least one device configured to generate supplementary data for use in error checking (i.e., check data), including but not limited to through its use of one or more encoders. Below is a representative depiction of such infringing components and functions as utilized in the NEC Terrain:



40. The NEC Terrain also 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.

41. The NEC Terrain also 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.

42. The NEC Terrain also includes at least one permutating device, including, for example, an interleaver, that includes or makes use of data storage in which subsequent re-orderings of the members of the given set are stored as disclosed in claim 4 of the '662 patent.

43. NEC Corporation of America therefore has directly infringed each element of claims 1-4 of the '662 patent at least by selling and offering to sell in the United States, and by importing into the United States, without authorization, '662 Accused Products like the NEC Terrain.

44. On information and belief, NEC Corporation, which directs and controls the activities of NEC Corporation of America, also has directly infringed, each element of claims 1-4 of the '662 patent at least by selling and offering to sell in the United States, and by importing into the United States, without authorization and prior to the expiration of the '662 patent, '662 Accused Products like the NEC Terrain.

45. In addition, NEC Corporation of America has indirectly infringed 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 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 technical information relating to such products prior to the expiration of the '662 patent with knowledge and the specific intent that its efforts would result in the direct infringement of the '662 patent.

46. For example, on information and belief, prior to the expiration of the '662 patent, each NEC Defendant took, or participated in taking, active steps to encourage end users of the

NEC Terrain to use the product in the United States in a manner it knew would directly infringe each element of at least claim 1 of the '662 patent as described above in paragraphs 38-42, including by encouraging consumers and end users and prior to the expiration of the '662 patent to utilize the NEC Terrain to transmit data over LTE data networks despite knowing of the '662 patent and the fact that such data transmissions will cause such consumers and end users to use the NEC Terrain in a manner that infringes the '662 patent.

47. Such active steps include, for example, advertising and marketing the NEC Terrain as a smartphone capable of transmitting data on an LTE data network and instructing NEC Terrain users how to utilize the NEC Terrain to transmit data on such data networks in the written manuals Defendants collectively created and distributed to end users and prior to the expiration of the '662 patent despite their respective knowledge of the '662 patent and the fact that such data transmissions would cause NEC Terrain users to directly infringe the '662 patent. *See, e.g.,* [https://www.att.com/support\\_static\\_files/manuals/NEC\\_Terrain.pdf](https://www.att.com/support_static_files/manuals/NEC_Terrain.pdf) (instructing users at pages 48-55 how to connect to an LTE network and transmit data over such networks) (stating that "NEC TERRAIN" is a registered trademark of NEC Corporation).

48. In short, each NEC Defendant actively induced the direct infringement of the '662 patent by its end users by, among other things, publishing NEC Terrain manuals and promotional literature describing and instructing the configuration and operation by its customers of the NEC Terrain in an infringing manner and by offering support and technical assistance to its customers that encourage use of the NEC Terrain prior to the expiration of the '662 patent in ways that would directly infringe at least claim 1 of the '662 patent.

49. Further, each NEC Defendant took or participated in the undertaking of such active steps after receiving notice from KPN of the '662 patent and being told no later than June

9, 2011, that it had been recognized as essential to standards governing LTE communications— thus demonstrating that use of the NEC Terrain by end users to transmit data over an LTE network in the United States would infringe the '662 patent.

50. In addition, each NEC Defendant indirectly infringed the '662 patent in violation 35 U.S.C. § 271(c) by selling and offering to sell in the United States, and importing into the United States, without authorization and prior to the expiration of the '662 patent, 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.

51. For example, on information and belief, each NEC Defendant knew at least by June 9, 2011, that the functionality included in the '662 Accused Products that enabled each to be interoperable with standard LTE networks infringes the '662 patent. Further, on information and belief, each NEC Defendant knew that the '662 Accused Products, including the NEC Terrain, were designed to ensure that they would be interoperable with standard LTE data networks.

52. Further, on information and belief, the infringing aspects of the '662 Accused Products only can be used in a manner that infringes the '662 patent and have no substantial non-infringing uses. Again using the NEC Terrain as an example, the product was especially designed to include the infringing combination of devices described above at paragraphs 38-42 specifically so that it can generate check data in accordance with the invention claimed in the '662 patent in order to allow it to be interoperable with standard LTE data networks. The

infringing aspects of the NEC Terrain otherwise have no meaningful use—let alone any meaningful non-infringing use.

53. In addition, NEC's infringement of the '662 patent was willful. At least by June 9, 2011, NEC Corporation had received not just notice of the '662 patent, but notice that the '662 patent had been recognized as essential to LTE telecommunications—demonstrating that use of the NEC Terrain by end users to transmit data utilizing an LTE network in the United States would infringe the '662 patent. Nevertheless, without authorization, each NEC Defendant deliberately continued to infringe the '662 patent in the manners described above, including, on information and belief, by selling and offering to sell in the United States, and importing into the United States, '662 Accused Products like the NEC Terrain, specifically in order to market and promote the sale of those products as LTE compatible devices.

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

#### **DEMAND FOR JURY TRIAL**

55. Plaintiff hereby demands a jury trial for all issues so triable.

#### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiff prays for judgment as follows:

A. Declaring that NEC Corporation of America and NEC Corporation have infringed the '662 patent, contributed to infringement of the '662 patent, and induced infringement of the '662 patent;

B. Awarding damages to Plaintiff arising out of this infringement of the '662 patent, 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 Plaintiff 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.

Date: June 30, 2017

Respectfully submitted,

FARNAN LLP

/s/ Brian E. Farnan

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