

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

SENTIUS INTERNATIONAL, LLC,

Plaintiff,

v.

LG ELECTRONICS U.S.A. and
LG ELECTRONICS INC.,

Defendants.

Civil Action No. 18-1217-MN

JURY TRIAL DEMANDED

SECOND AMENDED COMPLAINT FOR PATENT INFRINGEMENT

This is an action for patent infringement arising under the Patent Laws of the United States of America, 35 U.S.C. § 1 *et seq.* in which Plaintiff Sentius International, LLC (“Sentius” or “Plaintiff”) brings this patent infringement action against Defendants LG Electronics U.S.A., Inc. (“LG USA”) and LG Electronics Inc., its parent company (“LG Korea”, together with LG USA, “LG” or “Defendants”) and alleges as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement which arises under the Patent Laws of the United States, Title 35 United States Code (“U.S.C.”) 35 U.S.C. §§ 1 *et seq.*, including 35 U.S.C. §§ 271, 281, 283, 284, and 285, to prevent Defendants from infringing and profiting without authorization and consent from Sentius by its use of the technology covered by U.S. Patent No. RE43,633 (the “‘633 patent”, attached hereto as Exhibit “A”) and to recover damages, attorney’s fees, and costs pursuant thereto.

THE PARTIES

2. Plaintiff Sentius is a limited liability company duly organized and existing under the laws of Virginia with its principal place of business at 8300 Greensboro Drive, Suite 800, McLean, VA, 22102.

3. On information and belief, LG USA is registered to do business in the State of Delaware and it may be served with process by delivering a summons and a true and correct copy of this complaint to its registered agent for receipt of service of process, Corporation Service Company, 251 Little Falls Drive, Wilmington, DE 19808.

4. On information and belief, Defendant LG Korea is a Korean corporation with its principal place of business in LG Twin Towers, 20, Yeouido-dong, Yeongdeungpo-gu, Seoul, Republic of Korea, Seoul, Republic of Korea.

JURISDICTION AND VENUE

5. The Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§1331 and 1338(a) because the action arises under the Patent Laws of the United States, 35 U.S.C. §§ 271 et seq.

6. Court has personal jurisdiction over LG because, among other reasons, Defendants have established minimum contacts with the forum state of Delaware.

7. Venue is proper in this District under 28 U.S.C. § 1400(b). LG Korea is a foreign corporation, while LG-USA is incorporated in this district. A substantial part of the infringement alleged in this Complaint has occurred and is occurring in this district, including the marketing, selling, and offering for sale of infringing products.

DIRECT INFRINGEMENT OF THE '633 PATENT

8. On September 4, 2012, the United States Patent and Trademark Office (“USPTO”) duly and legally reissued the ‘633 patent, entitled “System and Method for Linking Streams of Multimedia Data to Reference Material for Display” (the “’633 Patent.”). A true and correct copy of the ‘633 patent is attached hereto as Exhibit A.

9. Sentius is presently the owner of the patent, having received all right, title and interest in and to the ‘633 patent from the previous assignee of record. Sentius possesses all substantive rights in and to the patent, including the sole and exclusive right to prosecute this action and enforce the ‘633 patent against infringers, and to collect damages for all relevant times.

10. Defendants have infringed at least claims 17, 18 and 101 of the ‘633 patent by its manufacture, use, sale, importation, or offer for sale of LG Smartphones (such as the LG Nexus 4) and other devices and their applications such as Email and Message or Messaging in the manner described herein. Defendants have infringed at least claims 62 and 146 of the ‘633 Patent by the use in the United States of the methods set forth in those claims in LG Smartphones. On information and belief, LG and Google developed together the LG Nexus 4 smartphone, which is an Android smartphone, but LG is the manufacturer of the LG Nexus 4. Upon information and belief, other models of the LG Smartphones incorporating the accused functionality, as set forth in greater detail in ¶¶ 11 – 23 and 24-35 below, include the LG Nexus 4 E960, LG Optimus G LS970, LG Optimus F3 VM720, LG Optimus F3 LS720, LG Optimus F7 LG870, LG G Flex D950, and the LG Nexus 5 D820. Defendants are liable for their infringement of the ‘633 patent pursuant to 35 U.S.C. § 271 for having made, sold, used, offered for sale such products within the United States, or having imported the same into the United States.

11. For example, claim 17 covers “A system for linking textual source material to

external reference material for display”. On information and belief, Defendant’s LG Smartphones include a system which offers spell-check features by linking textual source material to external reference material and has performed it using a method of storing pointers in look-up table entries for the starting and ending position addresses for the misspelled words in applications such as Email, Message or Messaging. The pointers link the misspelled words to the spell check dictionary which is an external reference material having correctly spelled replacements for the misspelled words. For example, the misspelled words are identified by highlighting with a red squiggly underline.

12. Claim 17 then recites “means for determining a beginning position address of textual source material stored in an electronic database”. On information and belief, LG Smartphones through the aforementioned applications offer a document editor which assigns a zero position address to the first character of the document text. The document editor is equipped with spell check parsing capabilities which identifies the text as discrete character strings.

13. Claim 17 then recites “means for cutting the textual source material into a plurality of discrete pieces”. On information and belief, when the document editor such as provided by the aforementioned applications is opened, the spell check parser parses the document to cut the text into individual words and phrases. These words or phrases are identified as discrete character strings.

14. Claim 17 then recites “means for determining starting point addresses and an ending point addresses of the plurality of discrete pieces based upon the beginning position address”. On information and belief, when the document editor such as provided by the Email, Message or Messaging applications is opened, the spell check parser identifies the beginning and ending character position offsets for the misspelled words relative to the beginning position

address of the potential misspelled word.

15. Claim 17 then recites “means for recording in a look-up table the starting and ending point addresses”. On information and belief, LG Smartphone devices have software which maintains a look-up table storing the beginning and ending character offsets relative to the beginning position address of the potential misspelled word. The misspelled word is highlighted by a red squiggly underline.

16. Claim 17 then recites “means for linking the plurality of discrete pieces to external reference materials by recording in the look-up table, along with the starting and ending point addresses of the plurality of discrete pieces, links to the external reference materials, the external reference materials comprising any of textual, audio, video, and picture information”. On information and belief, LG Smartphone devices have software which maintains a look-up table storing the beginning and ending character offsets relative to the beginning position address of the potential misspelled word. The misspelled word is highlighted by a red squiggly underline. On information and belief, the LG Smartphone devices maintain a spell check dictionary having lexicon of recognized words and phrases. When the document editor such as provided by Email, Message or Messaging applications is opened, the text is parsed and cut into discrete character strings including the misspelled words as explained above. The look up table also stores a link to the correctly spelled replacement word in the spell check dictionary. Therefore, the system uses the link to the spell check dictionary to access, retrieve and display content therefrom for any given misspelled word. The spell check feature thereby links a misspelled word in a document file to the suggested spellings for that word from the corresponding language spell check dictionary.

17. Claim 17 then recites “means for selecting a discrete portion of an image of the

source material”. On information and belief, LG Smartphone devices through the touch interface offer the user the option to click on the highlighted red squiggled misspelled word on the opened document editor such as provided by Email, Message or Messaging applications. On information and belief, the identified input location is then converted by the software to the character position address.

18. Claim 17 then recites “means for determining a display address of the selected discrete portion”. On information and belief, LG Smartphone devices through the touch interface offer the user the option to click on the highlighted red squiggled word on the opened document editor such as provided by Email, Message or Messaging applications. On information and belief, LG Smartphone devices include software instructions to identify the horizontal and vertical coordinates of the display location where the user’s touch input was received so that it can determine the corresponding document position of the user’s input. On information and belief, these instructions include the use of a user interface and pointing device programmed to perform this function.

19. Claim 17 then recites “means for converting the display address of the selected discrete portion to an offset value from the beginning position address”. On information and belief, LG Smartphone devices include software instructions to identify the character position offset value from the beginning position address corresponding to the horizontal and vertical coordinates of the display location where the user’s touch input was received.

20. Claim 17 then recites “means for comparing the offset value with the starting and ending point addresses recorded in the look-up table to identify one of the plurality of discrete pieces”. On information and belief, as explained above, the LG Smartphone devices include software instructions to identify the character position offset value from the beginning position

address corresponding to the horizontal and vertical coordinates of the display location where the user's touch input was received. The software determines if the identified character position is present in the look-up table and if present, identifying the corresponding entry.

21. Claim 17 then recites "means for selecting one of the external reference materials corresponding to the identified one of the plurality of discrete pieces; and". On information and belief, LG Smartphones through Email, Message or Messaging applications offer a document editor which is programmed to resolve the pointer for the corresponding entry to identify one or more corresponding character strings from a spell check dictionary for that entry's character string. On information and belief, for example, LG Smartphone devices include a set of software instructions that retrieves and temporarily stores in a buffer the identified lexicon words from the spell check dictionary for that character string.

22. Claim 17 then recites "means for displaying on a computer the selected one of the one of the external reference materials". On information and belief, as explained above, the LG Smartphone devices include software instructions to identify the character position offset value from the beginning position address corresponding to the horizontal and vertical coordinates of the display location where the user's touch input was received. The identified correctly spelled lexicon words present in the look-up table is retrieved and temporarily stored in a buffer from the spell check dictionary for that character string. The character string is passed from the buffer to the document editor to display them on a display as suggested corrections for that character string.

23. Claim 18 depends from independent claim 17, and covers "The system of claim 17, wherein the means for linking links the plurality of discrete pieces to external reference materials on a word-by-word or phrase-by-phrase basis". On information and belief, LG Smartphone devices include software which maintains an entry in the look-up table having a

corresponding pointer which links that entry to the specific suggested correct spellings for that entry's corresponding character string. In other words, each misspelled word whose position is recorded in the look-up table is linked to spelling suggestions for that particular word.

24. Claim 62 of the '633 Patent is an independent method claim that covers a "computer-implemented method for linking textual source material to external reference materials for display." On information and belief, LG practices the claimed method via software instructions in the accused products which are used by LG to execute the recited method steps.

25. Claim 62 then recites "determining a beginning position address of textual source material stored in an electronic database." On information and belief, LG practices this step via software instructions in the LG smartphones when they are executing the aforementioned applications in the United States. These instructions are used by LG in the accused LG smartphones to assign an initial "zero" position location to the first character of an LG Email/Messages/Note Pad document's text within an open LG Email/Messages/Note Pad document file.

26. Claim 62 further recites "cutting the textual source material into a plurality of discrete pieces." On information and belief, LG practices this step via software instructions in the LG smartphones when they are executing the aforementioned applications in the United States. These instructions are used by LG in the accused LG Smartphones to identify the discrete character strings representing the words contained within an open LG Email/Messages/Note Pad document file.

27. Claim 62 further recites "determining starting point addresses and ending point addresses of the plurality of discrete pieces based upon the beginning position address." On information and belief, LG practices this step via software instructions in the LG smartphones

when they are executing the aforementioned applications in the United States. These instructions are used by LG in the accused LG Smartphones to identify the starting and ending character position offsets from the first character position for the character strings of representing the potentially misspelled words contained within an open LG Email/Messages/Note Pad document file, (i.e., that have no matching character string in a spell check dictionary's lexicon.).

28. Claim 62 further recites "recording in a look up table the starting and ending point addresses." On information and belief, LG practices this step s via software instructions in the LG smartphones when they are executing the aforementioned applications in the United States. These instructions are used by LG in the accused LG Smartphones to record as discrete entries in a spell check look-up table the starting point and ending point offset positions from the beginning position of each such character string.

29. Claim 62 further recites "linking the plurality of discrete pieces to external reference materials by recording in the look-up table, along with the starting and ending point addresses of the plurality of discrete pieces, links to the external reference materials, the external reference materials comprising any of textual, audio, video, and picture information." On information and belief, LG practices this step via software instructions in the LG smartphones when they are executing the aforementioned applications in the United States. These instructions are used by LG in the accused LG Smartphones to, for each starting and ending point position entry for a misspelled word, record a pointer in the look-up table that links that entry to a spell check dictionary containing the specific suggested correct spellings for that entry's character string.

30. Claim 62 further recites "selecting a discrete portion of an image of the textual source material". On information and belief, LG practices this step via software instructions in

the LG smartphones when they are executing the aforementioned applications in the United States. These instructions are used by LG in the accused LG Smartphones to receive a user input (such as by the user “clicking”) on a given misspelled word and to select that indicated misspelled word for further processing.

31. Claim 62 further recites “determining a display address of the selected discrete portion.” On information and belief, LG practices this step via software instructions in the LG smartphones when they are executing the aforementioned applications in the United States. These instructions are used by LG in the accused LG Smartphones to identify the horizontal and vertical coordinates of the display location where the user’s input was received.

32. Claim 62 further recites “converting the display address of the selected discrete portion to an offset value from the beginning position address.” On information and belief, LG practices this step via software instructions in the LG smartphones when they are executing the aforementioned applications in the United States. These instructions are used by LG in the accused LG Smartphones to convert the horizontal and vertical coordinates of the display location where the user’s input was received to a character position offset value from the “zero” position value.

33. Claim 62 further recites “comparing the offset value with the starting and ending point addresses recorded in the look-up table to identify one of the plurality of discrete pieces.” On information and belief, LG practices this step via software instructions in the LG smartphones when they are executing the aforementioned applications in the United States. These instructions are used by LG in the accused LG Smartphones to identify which entry in the look-up table the identified character position offset value of the user’s input falls within by comparing it to starting and ending point position ranges recorded in the look-up table.

34. Claim 62 further recites “selecting one of the external reference materials corresponding to the identified one of the plurality of discrete pieces.” On information and belief, LG practices this step via software instructions in the LG smartphones when they are executing the aforementioned applications in the United States. These instructions are used by LG in the accused LG Smartphones to retrieve and temporarily store in a buffer the suggested spelling corrections from the spell check dictionary pointed to for the character string of the identified matching entry.

35. Claim 62 further recites “displaying on a computer the selected one of the external reference materials.” On information and belief, LG practices this step via software instructions in the LG smartphones when they are executing the aforementioned applications in the United States. These instructions are used by LG in the accused LG Smartphones to retrieve the suggested corrections from the buffer and display them on LG smartphone’s display.

DEFENDANTS’ PRODUCTS

36. Sentius incorporates herein by reference ¶¶ 8 – 35 *supra*.

37. The Accused Products include LG Smartphones, and other electronic devices having such features as its Email and Message or Messaging applications, that LG made, used, sold or offered for sale within the United States or imported into the United States such as the LG Nexus 4 E960, LG Optimus G LS970, LG Optimus F3 VM720, LG Optimus F3 LS720, LG Optimus F7 LG870, LG G Flex D950, and the LG Nexus 5 D820.. The Accused Products infringe at least claims 17, 18, 62, 101 and 146 of the ‘633 patent.

38. The Accused Products include a “red squiggly” spell check feature that determines the beginning position address of text in a document, parses the document text into properly spelled words and misspelled words, determines the starting and ending point address of each

misspelled word relative to the beginning position address, records the starting and ending point addresses of each misspelled word in a look-up table along with a link to at least one suggested spelling for the misspelled word contained in a spell check dictionary, displays an image of the document text, allows a user to select a portion of the displayed document text [corresponding to a misspelled word], determines the display address for the selected portion, converts that display address to an offset value from the beginning position address of the document text, compares the offset value to the starting and ending point addresses recorded in the look-up table to identify the corresponding text string, selects a suggested spelling from the spell check dictionary for that text string, retrieves the suggested spelling from the spell check dictionary, and displays the suggested spelling in a pop-up window near the misspelled word.

39. To the extent the step of method claims 62 or 146 for “selecting a discrete portion of an image of the textual source materials” is determined to require a user’s activity, on information and belief, LG is still responsible for direct infringement because it has made the benefits of its spell check functionality conditioned on the user’s performance of said steps and established the manner or timing of that performance. LG accomplishes this by requiring the user to click on the misspelled word (identified by LG by having the LG Smartphone display the word with a red line underneath it) if the user wishes the LG Smartphone display suggested spelling corrections.

INFRINGEMENT OF THE ‘633 PATENT

40. Sentius incorporates herein by reference ¶¶ 8-27 *supra*.

41. The Accused Products infringe at least claims 17, 18, 62, 101 and 146 of the ‘633 patent.

42. In violation of 35 U.S.C. § 271, Defendants are now, and has been directly

infringing the '633 patent.

43. Defendants have had knowledge of infringement of the '633 patent at least by February 9, 2016.

44. Defendants have directly infringed at least claims 17, 18 and 101 of the '633 patent by making, using, importing, offering for sale or selling the Accused Products without authority in the United States. Defendants have directly infringed at least claims 62 and 146 of the '633 patent by using the Accused Products without authority in the United States. As a direct and proximate result of Defendants' direct infringement of the '633 patent, Plaintiff has been and continues to be damaged.

45. By engaging in the conduct described herein, Defendants have injured Sentius and is thus liable for infringement of the '633 patent, pursuant to 35 U.S.C. § 271.

46. Defendants are also responsible for any infringing acts of its users, because it directs and/or controls the user's performance of those actions. On information and belief, Defendants make the benefits of its spell check functionality conditioned on the user's performance of any steps that involve the user and establish the manner or timing of that performance.

47. Defendants have committed these acts of infringement without license or authorization.

48. As a result of Defendants' infringement of the '633 patent, Sentius has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for their past infringement, together with interests and costs.

49. Sentius and/or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law, including, but not limited

to, 35 U.S.C. § 287.

DEMAND FOR JURY TRIAL

Sentius requests a trial by jury of any and all causes of action.

PRAYER FOR RELIEF

WHEREFORE, Sentius prays for the following relief:

a. That Defendants be adjudged to have directly infringed the '633 patent either literally or under the doctrine of equivalents;

b. An award of damages pursuant to 35 U.S.C. §284 sufficient to compensate Sentius for the Defendants' past infringement including compensatory damages;

c. An assessment of pre-judgment and post-judgment interest and costs against Defendants, together with an award of such interest and costs, in accordance with 35 U.S.C. §284; and

d. That Sentius have such other and further relief as this Court may deem just and proper.

e.

Dated: August 16, 2019,

Respectfully submitted,

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