IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

DATAQUILL LIMITED, Plaintiff, v. GOOGLE LLC and ALPHABET INC. Defendant.	C.A. No. 21-cv-1438-MN **JURY TRIAL DEMANDED**

FIRST AMENDED COMPLAINT

This is an action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code, against Defendants Google LLC and Alphabet Inc. (collectively "Google") that relates to U.S. Patent No. 6,058,304 owned by DataQuill Limited ("DataQuill").

PARTIES

1. Plaintiff DataQuill Limited is a limited company organized under the laws of the British Virgin Islands.

2. Defendant Google LLC is a Delaware limited liability company with its principal place of business at 1600 Amphitheatre Parkway, Mountain View, California 94043. Google LLC's registered agent for service is Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808.

3. Google LLC does business across the United States, including in the State of Delaware and in the District of Delaware.

4. Defendant Alphabet Inc. is a Delaware corporation with its principal place of business at 1600 Amphitheatre Parkway, Mountain View, California 94043. Alphabet Inc.'s registered agent for service is Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808. Alphabet Inc. is the parent holding company of Google LLC. Alphabet Inc. owns all the equity interest in Google LLC.

5. Alphabet Inc. does business across the United States, including in the State of Delaware and in the District of Delaware.

6. For the relevant time periods of this action, Google made, used, imported, offered for sale and sold in the United States: wireless mobile devices under the brand names Nexus and Pixel; Android OS; and the Google Play app for Android OS.

JURISDICTION AND VENUE

7. This is a civil action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. § 1, et seq., and more particularly 35 U.S.C. § 271.

8. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a).

9. Each Google Defendant is subject to this Court's jurisdiction because it is organized under Delaware law or incorporated in the State of Delaware.

10. Venue is proper in this District under 28 U.S.C. §1400(b), because each Google Defendant is organized under Delaware law or incorporated in Delaware.

BACKGROUND FACTS REGARDING THE DATAQUILL PATENTS

11. DataQuill is the owner of record and assignee of U.S. Patent No. 6,058,304 ("the '304 Patent") (the "Patent-in-Suit"). Ex. A.

12. DataQuill has sought to protect its invention through a licensing program (which has on several occasions required litigation). Many of the largest high-tech companies, including HTC, Nokia, Motorola, LG, Samsung, Palm, and Hewlett-Packard, have purchased a license to DataQuill's patent portfolio. To date, DataQuill has obtained over $128 million in licensing revenue.

13. The value of DataQuill's asserted patent is further demonstrated by DataQuill's repeated success against validity challenges. The Patent-in-Suit has been through a reexamination at the United States Patent and Trademark Office, Reexamination Control No. 90/008,340 ("the '8,340 reexamination"), where hundreds of references have been considered. In 2020, the Patent Trial and Appeal Board denied institution of an *inter partes* reexamination of the Patent-in-Suit.

14. In 2021, the United States Patent and Trademark Office ("USPTO") ordered a second reexamination of the Patent-in-Suit, Reexamination Control No. 90/014,654 ("the '4,654 reexamination"), that is currently pending for claims that were not asserted in Plaintiff's unamended complaint.

15. On October 20, 2021, the USPTO issued an office action expressly confirming the '304 Patent's claims 62 and 64 are patentable over art cited in the '4,564 reexamination. Claims 62 and 64 of the '304 patent are added to Plaintiff's infringement count in this complaint. Other claims of the '304 patent that remain subject to the '4,564 reexamination are not presently asserted in this complaint.

16. In prior litigations, the Patent-in-Suit withstood heavy scrutiny, including motions for summary judgment of anticipation, obviousness, inequitable conduct, lack of enablement, and lack of an adequate written description—all of which were resolved in DataQuill's favor. In

a case against ZTE, a jury returned a verdict finding the asserted claims of the '304 Patent valid and infringed and awarded damages of $31,500,000 and ZTE was ordered complete denial of its motions against the verdict for judgment as a matter of law.

17. The abstract of the Patent-in-Suit states:

> A data entry system includes a hand held data entry unit having a reading sensor for sensing commands and/or data, rewritable storage for storing information relating to selectable items, a controller (a microprocessor or other processing circuitry) and a display screen for displaying a user readable representation of the commands and/or stored information for a selected item, and a telecommunication interface for the telephonic transmission of information relating to a selected item or items from the storage to a remote processing center and for the telephonic information relating to selectable items from the remote processing center to the storage. Preferably a telecommunications interface is provided in the hand held unit for cellular or other wireless telephony systems. The hand held unit can be configured to combine the data entry functions with those of audio telephony.

18. The Patent-in-Suit, with priority to a 1993 application, discloses and claims many key features of modern smartphones. Over twenty years ago, the DataQuill inventors invented a handheld device that, in several embodiments, functioned as both a cellular telephone and a merchandising system that enabled users to wirelessly download and update information about items at a remote processing center, as well as display, browse, select, and wirelessly place orders for those items. Ex. A at 2:13-44, 3:10-15, 4:27-32, 10:49-61.

19. The specification explains that the invention can include a "reading sensor" that is used to input information for selecting items and issuing commands to control operation of the device. *Id.* at 2:13-29, 3:47-55, 10:10-33. The reading sensor in one embodiment is a bar code reader, which can be used to scan bar codes that correspond to letters, numbers, and commands. *Id.* at Figs. 1, 6, 9:60-10:65. The specification also explains that other types of reading sensors could serve as an input device in various embodiments, and expressly describes the use of either

a camera (5:35-43) or, most pertinent to the infringement at issue here, a touch screen (12:65-13:21).

20. The specification describes, in an embodiment, that various data codes and command codes for controlling the device can be placed on a "carrier" and the reading sensor can be used to select particular codes on the carrier. *Id.* at 5:18-34. These codes are then interpreted by a processor (e.g., processing circuitry) and used to control the device. *Id.* at 10:10-34. One simple example of a carrier for use with a bar code reader is a sheet of paper that has printed bar codes associated with individual numeric characters or commands (*e.g.*, Fig. 6). *Id.* at 9:60-65. In this embodiment, a user would control the device by scanning selected bar codes with the bar code reading sensor. Alternatively, in the touch screen embodiment, the carrier could be a display screen where particular locations on the screen are associated with items and commands. *Id.* at 13:10-21. By inputting information via the sensor, a user is able to navigate a catalog of available items, display and review information about particular items, and transmit orders to a remote processing center. *Id.* at 4:14-26, 4:33-38, 4:57-61, 4:62-5:10, 10:10-34.

THE PATENT-IN-SUIT AND CLAIMS-IN-SUIT

21. DataQuill has the exclusive right to sue and the exclusive right to recover damages for infringement of the Patent-in-Suit during all relevant time periods.

22. On May 2, 2000, the '304 Patent entitled "Data Entry Systems" was duly and legally issued by the USPTO. On April 13, 2010, the USPTO issued an Ex Parte Reexamination Certificate for the '304 Patent.

GOOGLE'S INFRINGING PRODUCTS

23. Google made, used, offered for sale, sold, and imported into the United States smartphones that enable users to browse and download items such as apps, games, ringtones,

music, videos, books, and magazines. These devices include but are not limited to the following models: Nexus 6, Nexus 5X, Nexus 6P, Pixel, Pixel XL. The devices are a subset of, and collectively referred to as, ("Accused Google Smartphones").

24. In addition to the specific models listed above, for the purpose of direct infringement, the "Accused Google Smartphones" are all Google smartphones that incorporated a touch-sensitive screen and the Android operating system ("Android OS") that were offered for sale or sold in the United States between the period that is six years before the filing date of this complaint and the expiration of the Patent-in-Suit.

25. Google made, used, offered for sale, sold, and imported into the United States tablet devices that enable users to browse and download items such as apps, games, ringtones, music, videos, books, and magazines.

26. For the purpose of Google's direct infringement, these devices include all tablet devices that incorporate a touch-sensitive screen including without limitation a touch-sensitive screen with a 7-inch or smaller diagonal size and Android OS that were offered for sale or sold in the United States between the period that is six years before the filing date of this complaint and the expiration of the Patent-in-Suit ("Accused Google Tablets").

27. Google directly infringed claims of the Patent-in-Suit under 35 U.S.C. § 271(a) by making, using, offering for sale, selling, and/or importing the Accused Google Smartphones and/or Accused Google Tablets ("Accused Google Smartphones and Tablets") in this District and elsewhere in the United States that include the systems claimed in the Patent-in-Suit.

28. For the purpose of indirect infringement, the "Accused Smartphones" include all third-party unlicensed Android smartphones that incorporated a touch-sensitive screen, Android OS, and the Google Play app for Android OS, that were offered for sale or sold in the United

States between the period that is six years before the filing date of this complaint and the expiration of the Patent-in-Suit ("Accused Third-Party Smartphones") as well as the Accused Google Smartphones.

29. For the purpose of indirect infringement, the "Accused Tablets" include all third-party unlicensed Android tablet devices that incorporated a touch-sensitive screen including without limitation a touch-sensitive screen with a 7-inch or smaller diagonal size, Android OS, and the Google Play app for Android OS, that were offered for sale or sold in the United States between the period that is six years before the filing date of this complaint and the expiration of the Patent-in-Suit ("Accused Third-Party Tablets") as well as the Accused Google Tablets.

30. Google indirectly infringed claims of the Patent-in-Suit, inducing direct infringement pursuant to U.S.C. § 271(b) in this District and elsewhere in the United States at least by: (i) its customers of Accused Google Smartphones and Accused Google Tablets and its customers of Android OS with Google Play having directly infringed the Patent-in-Suit by making, using, selling, offering for sale, and/or importing Accused Smartphones and Accused Tablets in this District and elsewhere in the United States in direct infringement of the Patent-in-Suit; (ii) Google having knowingly induced with the intent to encourage the customers' direct infringement, for example, by providing user guides and other support materials and services for Accused Smartphones and Accused Tablets to its customers and to third party customers and by advertising features and benefits of Accused Smartphones and/or Accused Tablets to customers that were made, used, and/or sold intending customers to make, use, and/or sell those features and/or achieve those benefits while Google knew that Accused Smartphones and/or Accused Tablets infringed the Patent-in-Suit.

31. Google indirectly infringed claims of the Patent-in-Suit, inducing direct infringement pursuant to U.S.C. § 271(b) in this District and elsewhere in the United States at least by: (i) customers of Accused Third-Party Smartphones and Accused Third-Party Tablets having directly infringed the Patent-in-Suit by making, using, selling, offering for sale, and/or importing Accused Third-Party Smartphones and Accused Third-Party Tablets in this District and elsewhere in the United States in direct infringement of the Patent-in-Suit; (ii) Google having knowingly induced with the intent to encourage the customers' infringement, for example, by providing user guides and other support materials and services for Accused Third-Party Smartphones and Accused Third-Party Tablets to third party customers and by advertising features and benefits of Accused Smartphones and/or Accused Tablets to customers that were made, used, and/or sold intending customers to make, use, and/or sell those features and/or achieve those benefits while Google knew that Accused Smartphones and/or Accused Tablets infringed the Patent-in-Suit.

32. Google indirectly infringed claims of the Patent-in-Suit, contributing to direct infringement pursuant to U.S.C. § 271(c) in this District and elsewhere in the United States at least by: customers of Accused Third-Party Smartphones and Accused Third-Party Tablets having directly infringed the Patent-in-Suit by making, using, selling, offering for sale, and/or importing Accused Third-Party Smartphones and Accused Third-Party Tablets in this District and elsewhere in the United States in direct infringement of the Patent-in-Suit; that Google distributed and provided Android OS with Google Play for Android OS, to third-party mobile device manufacturers who combined Android OS, including Google Play for Android OS, with third-party mobile devices, including Accused Third-Party Smartphones and/or Accused Third-Party Tablets that incorporated Android OS with Google Play for Android OS with for example

a touch-sensitive screen including but not limited to screens that were 7-inch or smaller diagonal size; that Google knew that the combination of Android OS with Google Play for Android OS, having been made for combination with the third-party mobile devices, infringed the Patent-in-Suit; and Google Play for Android OS has no substantial non-infringing use.

33. Despite Google's awareness of the Patent-in-Suit, Google continued these acts of: inducement with specific intent to infringe the Patent-in-Suit with knowledge or willful blindness that such activities occurred and constituted direct infringement of the Patent-in-Suit; and contribution with Google's knowledge or willful blindness that the combination with Google's contributed component constituted direct infringement of the Patent-in-Suit.

GOOGLE'S KNOWLEDGE OF THE PATENT-IN-SUIT, HOW GOOGLE INFRINGES IT, AND GOOGLE'S CONTINUED INFRINGEMENT DESPITE THAT KNOWLEDGE

34. At least as early as January 13, 2010, DataQuill, through counsel, provided a notice letter to Google regarding the '304 Patent. Ex. B.

35. Google did not enter into a license agreement with DataQuill following the January 2010 letter.

36. Despite knowledge of the Patent-in-Suit and knowledge of the manner in which the Patent-in-Suit were infringed, Google continued to infringe, and induce the infringement of, the Patent-in-Suit.

COUNT I: INFRINGEMENT OF PAT. 6,058,304

37. DataQuill reasserts and realleges paragraphs 1 through 36 of this Complaint as though set forth fully here.

38. Google directly infringed the '304 Patent in the State of Delaware, in this judicial district, and elsewhere within the United States by making, using, offering for sale, selling,

and/or importing Accused Google Smartphones and Tablets that infringe one or more claims of the ’304 Patent.

39. Accused Google Smartphones and Tablets sold by Google infringed at least claims 101 of the ’304 Patent, for example as explained in the following paragraphs (40-54) with reference to Accused Google Smartphones.

40. The Accused Google Smartphones are data entry devices for use in a data entry system.

41. Each Accused Google Smartphone contains at least one reading sensor. “Reading sensor” has been repeatedly construed by several courts to cover a touchscreen. Each Accused Google Smartphone has a touchscreen. The touchscreen is a reading sensor responsive to commands and/or sensed commands and data. The touchscreen produces input signals.

42. For example, the touchscreen of each Accused Google Smartphone is responsive to commands and/or sensed commands and data that enable a user to navigate and download Google Play Products from Google Play.

43. The Accused Google Smartphones contain a controller coupled to the reading sensor to receive and process input signals from the touchscreen, e.g., circuitry coupled to the touchscreen including the touchscreen controller and processor. This circuitry responds to input signals to control the Accused Google Smartphones and to select items.

44. The Accused Google Smartphones’ controller is coupled to a communications interface to selectively control transmission over said communications interface of command and/or data signals as determined by said input signals processed by the controller.

45. For example, Accused Google Smartphones contain a communications interface

(e.g., the GSM/GPRS/UMTS/ HSDPA/HSUPA/HSPA+/DC-HSDPA/EDGE/CDMA/EV-DO/3G/4G/LTE/FDD-LTE/TD-LTE circuitry). The communications interface is coupled to the controller. The communications interface provides for transmission of commands and/or data signals as determined by input signals processed by the controller in several ways including: commands and/or data signals are transmitted over the communications interface when a user navigates Google Play and selects to view additional information about an item or to rate or review an item or when a user chooses to download an item from Google Play.

46. The Accused Google Smartphones contain a communications interface (e.g., the GSM/GPRS/UMTS/HSDPA/HSUPA/HSPA+/DC-HSDPA/EDGE/CDMA/EV-DO/3G/4G/LTE/FDD-LTE/TD-LTE circuitry) that directly connects the Accused Google Smartphones to a wireless telecommunications network. This connection is made over a wireless telecommunications network via an antenna.

47. The Accused Google Smartphones contain a touchscreen display coupled to a controller to display commands and/or information under control of the input signals processed by the controller. For instance, the Google Play store displays buttons under the control of input signals the Accused Google Smartphones' controller processes.

48. The Accused Google Smartphones' reading sensors, controllers, and displays comprise a unitary assembly. The Accused Google Smartphones are sold as complete, integrated units. The Accused Google Smartphones' touchscreens comprise a reading sensor and a display. The controller is located within the Accused Google Smartphones.

49. The Accused Google Smartphones contain a communications interface (e.g., the GSM/GPRS/UMTS/HSDPA/HSUPA/HSPA+/DC-HSDPA/EDGE/CDMA/EVDO/3G/4G/LTE/FDD-LTE/TD-LTE circuitry) that is a cellular

telephone network interface. The cellular telephone network interface directly connects the Accused Google Smartphone to a wireless telecommunications network that is a cellular telephone network.

50. Each Accused Google Smartphones is a data entry device integral with a cellular telephone. The Accused Google Smartphones comprise both a data entry device and a cellular telephone.

51. The controller is configured to respond to a user update command by downloading information required for updating information previously stored in the Accused Google Smartphones. For example, a user can choose to update a user selectable application by tapping the "UPDATE" button. The existing application was previously stored on the Accused Google Smartphones, and the "UPDATE" button initiates a download of information to update that application. Additionally, when a user accesses Google Play by tapping the Google Play icon, information required for updating applications (e.g., whether an update is available, app permission information) is downloaded from a remote processing center (e.g., one or more of the servers that operate Google Play). An update may be available if the user previously downloaded and stored said app.

52. The Accused Google Smartphones comprise a touchscreen, which is a carrier. "Carrier" has been construed by multiple courts to mean "a medium that carries one or more data and/or command codes." The touchscreen is a medium associated with displaying a plurality of data and/or command codes. The data and/or command codes are displayed on the screen as buttons, links, or icons. The touchscreen is associated with displaying a plurality of user selectable items, such as Google Play Products.

53. The Accused Google Smartphones' touchscreens carry a plurality of codes

representing natural language characters and numbers, as well as commands for controlling operation of the data entry and/or merchandising systems. For natural language characters and numbers, the Accused Google Smartphones display a keyboard that can be used to input information. For commands, the touchscreen displays apps, buttons, or links that a user may select to control the system.

54. Each code is associated with a visual representation displayed on the Accused Google Smartphones' screens. The codes may be product identifications such as links to products on the Google Play store.

55. Accused Google Smartphones and Tablets sold by Google infringed at least claims 64 of the '304 Patent, for example as explained in the following paragraphs (56-81) with reference to Accused Google Smartphones.

56. The Accused Google Smartphones are data entry devices. They may be used to selectively download description information for later user access, to select and order merchandisable items, to select from multi-lingual display, and as cellular telephone handsets.

57. Each Accused Google Smartphone contains at least one reading sensor. "Reading sensor" has been repeatedly construed by several courts to cover a touchscreen. Each Accused Google Smartphone has a touchscreen. The touchscreen is a reading sensor responsive to commands and/or sensed commands and data. The touchscreen produces input signals.

58. For example, the touchscreen can sense commands and/or data that enable a user to navigate and download Google Play Products from Google Play.

59. The Accused Google Smartphones contain a controller coupled to the reading sensor to receive and process input signals from the touchscreen, e.g., circuitry coupled to the

touchscreen including the touchscreen controller and processor. This circuitry responds to input signals to control the Accused Google Smartphones and to select items.

60. The Accused Google Smartphones' controller is coupled to a communications interface to selectively control transmission over said communications interface of command and/or data signals as determined by said input signals processed by the controller.

61. For example, Accused Google Smartphones contain a communications interface (e.g., the GSM/GPRS/UMTS/ HSDPA/HSUPA/HSPA+/DC-HSDPA/EDGE/CDMA/EV-DO/ 3G/4G/LTE/FDD-LTE/TD-LTE circuitry). The communications interface is coupled to the controller. The communications interface provides for transmission of commands and/or data signals as determined by input signals processed by the controller in several ways including: commands and/or data signals are transmitted over the communications interface when a user navigates Google Play and selects to view additional information about an item or to rate or review an item or when a user chooses to download an item from Google Play.

62. The Accused Google Smartphones contain a communications interface (e.g., the GSM/GPRS/UMTS/HSDPA/HSUPA/HSPA+/DC-HSDPA/EDGE/CDMA/EV-DO/3G/4G/LTE/ FDD-LTE/TD-LTE circuitry) that directly connects the Accused Google Smartphones to a wireless telecommunications network. This connection is made over a wireless telecommunications network via an antenna.

63. The Accused Google Smartphones contain a touchscreen display coupled to a controller to display commands and/or information under control of the input signals processed by the controller. For instance, the Google Play store displays buttons under the control of input signals the Accused Google Smartphones' controller processes.

64. The Accused Google Smartphones' reading sensors, controllers, and displays

comprise a unitary assembly. The Accused Google Smartphones are sold as complete, integrated units. The Accused Google Smartphones' touchscreens comprise a reading sensor and a display. The controller is located within the Accused Google Smartphones.

65. The Accused Google Smartphones contain a communications interface (e.g., the GSM/GPRS/UMTS/HSDPA/HSUPA/HSPA+/DC-HSDPA/EDGE/CDMA/EVDO/3G/4G/LTE/FDD-LTE/TD-LTE circuitry) that is a cellular telephone network interface. The cellular telephone network interface directly connects the Accused Google Smartphone to a wireless telecommunications network that is a cellular telephone network.

66. Each Accused Google Smartphones is a data entry device integral with a cellular telephone. The Accused Google Smartphones comprise both a data entry device and a cellular telephone.

67. The controller is configured to respond to a user update command by downloading information required for updating information previously stored in the Accused Google Smartphones. For example, a user can choose to update a user selectable application by tapping the "UPDATE" button. The existing application was previously stored on the Accused Google Smartphones, and the "UPDATE" button initiates a download of information to update that application. Additionally, when a user accesses Google Play by tapping the Google Play icon, information required for updating applications (e.g., whether an update is available, app permission information) is downloaded from a remote processing center (e.g., one or more of the servers that operate Google Play). An update may be available if the user previously downloaded and stored said app.

68. The Accused Google Smartphones are data entry devices integral with a cellular telephone. The Accused Google Smartphones comprise both a data entry device and a cellular

telephone. The Accused Google Smartphones are handholdable devices that may be used as telephone handsets.

69. The Accused Google Smartphones contain rewritable storage including caches and internal memory. The rewritable storage is made of solid state memory (e.g., RAM, flash).

70. The Accused Google Smartphones contain a rechargeable power supply.

71. The Accused Google Smartphones comprise at least two distinct mechanical/manually operable key switches that input user information. The user engages the "Power" button to turn the phones on and off, and to turn on or lock the screen. The "Volume" buttons allow a user to control the volume of its ring tone and the volume of the receiver during a call. The power and volume buttons can be used together, e.g., to instruct the phone to take a screen shot.

72. An Accused Google Smartphone user is able to select the language displayed on his or her Accused TCL Smartphone. There are multiple languages available for a user to select, including English. Thus, a user operating an Accused Google Smartphone is able to select and operate an Accused Google Smartphone in a user understandable language from a list of languages that includes English and at least one other language.

73. The Accused Google Smartphones allow a user to connect to Google Play through a cellular telephone network. Through Google Play, a user can select and download information (including description information) relating to various Google Play Products. This information is stored in solid state memory in the Accused Google Smartphones. The user can access the downloaded information without any further access to the remote processing center (e.g., the Google Play servers).

74. For instance, the hand holdable, Accused Google Smartphones, by utilizing the

network interface and cellular telephone network, are operable to download for storage from a remote processing center (*e.g.*, Google Play servers) via a telecommunications network in several ways, description information corresponding to each of a plurality of user selectable items including: information related to selectable items such as descriptions of songs, albums, movies, videos, apps, books, and magazines is received when a user navigates Google Play; information related to selectable items such as the item itself is received when a user chooses to download an item from Google Play; information related to selectable items such as whether an update is available is received for apps that are installed; and information related to selectable items such as an update to that item is received when an update is requested.

75. This description information is maintainable in storage by utilizing the Accused Google Smartphones' solid state memory for later user access without requiring transmission of any description information to the Accused Google Smartphones.

76. Information is downloaded from the remote processing center in response to coded instructions transmitted to the remote processing center by the Accused Google Smartphones over a network interface. These coded instructions are transmitted as a user navigates Google Play (*e.g.*, by selecting Movies & TV or Books from the bottom row menu of icons). The coded instructions are transmitted in response to commands such as: selecting to view the categories of Google Play Products; search queries within Google Play; downloading an item or updating an application or operating system. In response to these actions, or requesting more detailed information about an item (such as a Google Play Product) available through Google Play.

77. For example, selecting a particular album in Google Play is a command. After the user selects an album, Google Play displays more detailed information about the contents of said

album. This is in response to a user command.

78. After the description information is downloaded to the Accused Google Smartphones from the remote processing server, it is stored in memory on the Accused Google Smartphones. The Accused Google Smartphones may display user selectable items in list form. This includes, for example, lists of downloaded: Google Play Products; applications; and items available from Google Play (e.g., Google Play Products that are available for download). Each item from the list is individually selectable by the user, at which point description information will be displayed. The description information is stored in the Accused Google Smartphones' memory, and the Accused Google Smartphones can display the description information without further access to the remote processing center. For instance, users can an select item in Google Play and the Accused Google Smartphones will display the new description information for the item; the user then can switch to airplane mode and shut off wireless access, select the left arrow to return to the list, and select the item again to display the item's description information while disconnected from any network. An Accused Google Smartphone's user selects an item from the list of selectable items by touching the screen at the item's location. Individual items (such as Google Play Products) that have been downloaded and stored in the Accused Google Smartphones are also individually selectable using the display screen

79. The information previously stored on the Accused Google Smartphones (*i.e.*, information related to a Google Play Product) is part of the description of an item downloaded from a remote processing center. The information corresponds to an individual item of a plurality of selectable items.

80. The controller is responsive to the user's command to download information from the Google Play server as required for updating information previously stored in the Accused

Google Smartphones. The controller is configured to respond to a user update command by downloading information required for updating information previously stored in the Accused Google Smartphones.

81. For example, a user can choose to update a user selectable application by tapping the "UPDATE" button. The existing application was previously stored on the Accused Google Smartphones, and the "UPDATE" button initiates a download of information to update that application. Additionally, when a user accesses Google Play by tapping the Google Play icon, information required for updating applications (e.g., whether an update is available, app permission information) is downloaded. An update can only be available if the user previously downloaded and stored said app.

82. In addition to claims 64 and 101, by way of example, Google infringed at least independent claims 62, 78, 80, 81, 83, and 86 of the '304 Patent and at least the following dependent claims (as depending from the corresponding independent claims in parentheses or as depending from dependent claims in parentheses with independent claims in braces): 13 (12 {80, 83, 86, or 101}); 45 (44 {78, 81, 113, 114, 115, 116, or 117}); 55 (53 {78 or 81}); 40 (78); 59 (78); 60 (78); 32 (81); 34 (81); 35 (81); 44 (78, 81, 113, 114, 115, 116, or 117); 53 (78 or 81); 56 (78 or 81); 57 (78 or 81); 20 (80, 83, or 86); 12 (80, 83, 86, or 101); 22 (80, 83, 86, or 101); 23 (80, 83, 86, or 101); 9 (101); 41 (113, 114, 115, 116, or 117) 47 (78, 81, 113, 114, 115, 116, or 117); 52 (78, 81, 113, 114, 115, 116, or 117); 65 (64); 66 (64); 67 (64); 69 (64); 70 (64); 71 (64); 72 (64); 73 (64); 75 (64); and 79 (78).

83. Google is thus liable for infringement of the '304 patent under 35 U.S.C. § 271(a).

84. Claim 101 of the reexamined ’304 patent was added in amendment and is the ’304 patent’s original dependent claim 21 rewritten in independent form as depending from original claim 2.

85. Accordingly, claim 101 did not enlarge the scope of the claims of the ’304 Patent or add new subject matter. It recited an embodiment of the invention which provided significant improvement and utility from, and was patentable over, the prior art.

86. The technology claimed in claim 101 was not well understood, routine, or conventional at the time that the application was filed and, by improving mobile devices and merchandising systems, provided a technological solution to a technological problem rooted in mobile device and merchandising system technologies.

87. Claim 64 was added by amendment during the ’8,340 reexamination and includes all of original claim 2 but added further limitations disclosed in the ’304 Patent’s specification.

88. Accordingly, claim 64 did not enlarge the scope of the claim 2 or add new subject matter.

89. Claim 64 recited an alternate embodiment of the invention which provided significant improvement and utility from, and was patentable over, the prior art.

90. The technologies claimed in claim 64 were not well understood, routine, or conventional at the time that the application was filed and, by improving mobile devices and merchandising systems, provided technological solutions to technological problems rooted in mobile device and merchandising system technologies.

91. Amended Claim 62, which was found patentable in the ’8,340 reexamination, includes all of original claim 62 but added further limitations disclosed in the ’304 Patent’s specification.

92. Accordingly, amended claim 62, did not enlarge the scope of original claims 62 or add new subject matter.

93. Amended claim 62 recited an alternate embodiment of the invention which provided significant improvement and utility from, and was patentable over, the prior art.

94. Claim 78, 80, 81, and 83 were added by amendment in the '8,340 reexamination. Claim 78 is original claim 28 re-written in independent form with further limitations disclosed in the '304 Patent's specification. Claim 80 is original claims 10 and 2 rewritten in independent form with further limitations disclosed in the '304 Patent's specification. Claim 81 is original claims 43, 41, and 26 rewritten in independent form with further limitations disclosed in the '304 Patent's specification. Claim 83 is original claim 11 rewritten in independent form as depending from original claim 1. Claim 86 is original claim 14 rewritten in independent form as depending from original claim 2. Each of claims 113 to 117 is original claim 51 rewritten in independent form as depending, respectively, from original claims 26 to 30.

95. Accordingly, claims 78, 80-81, 83, 86, 113-117 did not enlarge the scope of original claims 28, 10, 2, 43, 41, 26, or add new subject matter.

96. Claims 78, 80-81, 83, 86, 113-117 recited alternate embodiments of the invention which provided significant improvement and utility from, and was patentable over, the prior art.

97. Claims 9, 12, 20, 23, 32, 34-35, 40-41, 44, 47, 52-53, 56, and 59 are the original dependent claims rewritten to depend from claims found patentable in the '8,340 reexamination. Claims 9, 12, 20, 23, 32, 34-35, 40-41, 44, 47, 52-53, 56, and 59 include limitations disclosed in the '304 Patent's specification. As dependent claims, claims 9, 12, 20, 23, 32, 34-35, 40-41, 44, 47, 52-53, 56, and 59 further limit the independent and dependent claims from which 9, 12, 20, 23, 32, 34-35, 40-41, 44, 47, 52-53, 56, and 59 depend.

98. Accordingly, claims 9, 12, 20, 23, 32, 34-35, 40-41, 44, 47, 52-53, 56, and 59 did not enlarge the scope of original claims or add new subject matter.

99. Claims 9, 12, 20, 23, 32, 34-35, 40-41, 44, 47, 52-53, 56, and 59 recited alternate embodiments of the invention which provided significant improvement and utility from, and was patentable over, the prior art.

100. Claims 13, 45, and 55 are original dependent claims and depend on amended dependent claims that added further limitations disclosed in the '304 Patent's specification.

101. Accordingly, claims 13, 45, and 55 did not enlarge the scope of original claims or add new subject matter.

102. Claims 13, 45, and 55 recited alternate embodiments of the invention which provided significant improvement and utility from, and was patentable over, the prior art.

103. The technologies claimed in the foregoing claims (*see* paragraphs 82, 84-102) were not well understood, routine, or conventional at the time that the application was filed and, by improving mobile devices and merchandising systems, provided technological solutions to technological problems rooted in mobile device and merchandising system technologies.

104. With knowledge of the '304 Patent and knowledge of the infringing nature of Accused Google Smartphones and Tablets (or, at a minimum, willful blindness thereto), Google has encouraged its retailers to directly infringe the '304 Patent by offering to sell and selling these devices to end user consumers. Google knew of and intended to cause its retailers' direct infringement and is therefore liable for actively inducing their infringement of the '304 Patent under 35 U.S.C. § 271(b).

105. With knowledge of the '304 Patent and knowledge of the infringing nature of

Accused Google Smartphones and Tablets (or, at a minimum, willful blindness thereto), Google has encouraged end users to directly infringe the '304 Patent by using these devices. Google has marketed, promoted, and instructed users to use these devices in an infringing manner. This marketing, promotion, and instruction has specifically included instructions to use the devices' functionality to download apps, games, music, videos, books, magazines, and ringtones. Google knew of and intended to cause its end users' direct infringement and is therefore liable for actively inducing their infringement of the '304 Patent under 35 U.S.C. § 271(b). *See* Ex. C, Attach. 3-7 (advertising the availability of Google Play app for Android on mobile devices), Attach 8 to 15 (advertising features of the Google Play app on mobile devices including downloading and purchasing apps, music, ringtones, and updating apps).

106. Google indirectly infringed the Patent-in-Suit by actively inducing the direct infringement of claims of the Patent-in-Suit pursuant to U.S.C. § 271(b) in this District and elsewhere in the United States by, for example: licensing and providing Android OS and other support materials and services (*see, e.g.*, Ex. C, Attach. 1-2) to third-party mobile device manufacturers that made, used, offered for sale, sold and/or imported, in this District and elsewhere in the United States, Accused Smartphones that incorporated Android OS and a touch-sensitive screen and/or Accused Tablets that incorporated Android OS and a touch-sensitive screen including but not limited to screens that were 7-inch or smaller diagonal size; and advertising features of Android OS that are used, and benefits that are achieved through use of the Patent-in-Suit (*see* Ex. C, Attach. 3 to 15 (advertising [1] the availability of Google Play app for Android on mobile devices and [2] features of the Google Play app on mobile devices including downloading and purchasing apps, music, ringtones, and updating apps).

107. These retailers and end users of Accused Google Smartphones and Accused Google Tablets and these third-party mobile device manufacturers and their retailers and end users of Accused Third-Party Smartphones and Accused Third Party Tablets have directly infringed the Patent-in-Suit by making, using, selling, offering for sale, and/or importing Accused Smartphones and Accused Tablets in this District and elsewhere in the United States in direct infringement of the Patent-in-Suit *inter alia* for the same reasons alleged in paragraphs 39-54, 55-81.

108. Google was aware of the '304 patent by at least 2010. DataQuill sent a letter on January 13, 2010, by facsimile and U.S. mail to Google's General Counsel notifying Google that mobile devices incorporating Google's Android OS directly infringed the '304 patent. The letter stated:

> U.S. Patent no. 6,058,304 . . . re viol. notice . . . . We represent DataQuill Limited . . . . It has come to our attention that Google has manufactured, offers for sale and/or sells, etc. systems and devices including its Nexus One line of mobile phone devices with Android OS. You may wish to have your patent counsel examine the claims of the referenced patents relative to Google's devices and systems to determine whether a non-exclusive license or appropriate covenant not to sue is needed. See, for example only, '304 patent e.g., dependent claims 18, 21 (as depending e.g. from claim 2) . . . .

Ex. B at 2 (Letter to Google).

109. Google was aware of the '304 patent because its subsidiary Google Technology Holdings LLC is the assignee of US Patent No. 6,393,079, which cites the '304 patent.

110. Google was aware of the '304 patent because over 100 U.S. patents that issued after April 2010 have cited the '304 patent as prior art.

111. Google was aware of the '304 patent because DataQuill has asserted claims of the reexamined patent's claims in litigation against major manufacturers of smartphones that incorporate a touchscreen, Android OS, and the Google Play app for Android OS, including ZTE

in the Eastern District of Texas jury trial that resulted in a $31.5 million dollar verdict and including HTC, Huawei, and TCL.

112. Google was aware of the ’304 patent and specification because: DataQuill’s Patent No. 7,505,785 is a continuation of the ’304 patent and shares the same specification as the ’304 patent; and dozens of Google patents cite DataQuill’s ’785 patent (e.g., U.S. Patent Nos. 7,990,556; 8,005,720; 8,019,648; 8,064,700; 8,081,849; 8,146,156; 8,179,563; 8,214,387; 8,261,094; 8,346,620; 8,418,055; 8,442,331; 8,447,066; 8,447,111; 8,447,144; 8,489,624; 8,505,090; 8,515,816; 8,600,196; 8,619,147; 8,619,287; 8,620,083; 8,620,760; and 8,621,349).

113. Google was aware (or willfully blind) at least by 2010 that mobile devices including Accused Smartphones and/or Accused Tablets incorporating Google’s Android OS directly infringed the ’304 patent because, among other things, DataQuill’s January 13, 2010 letter notified Google that such systems infringed the ’304 patent, or Google was willfully blind about that fact. Among other things, the letter directed Google to review the ’304 patent including its original dependent claims 18 and 21 as depending from claim 2 with respect to Google’s Nexus One smartphone which incorporated a touchscreen and Android OS.

114. Claim 101 of the reexamined ’304 patent (*see supra* paragraphs 39-54) is the ’304 patent’s original dependent claim 21 rewritten in independent form as depending from claim 2.[1]

’304 patent (original)	**’304 patent (reexamined)**
2. A data entry device for use in a data entry System, said data entry device comprising: a reading Sensor responsive to commands and/or sensed commands and data to produce input signals, a controller coupled to said reading sensor to receive and process said input signals,	101. A data entry device for use in a data entry system, said data entry device comprising: a reading sensor responsive to commands and/or sensed commands and data to produce input signals, a controller coupled to said reading sensor to receive and process said input signals,

[1] *See* Ex. D, Certificate of Correction at 1, U.S. Patent No. 6,058,304 C1 (correcting errors in claim 101 as printed in the Ex Parte Reexamination Certificate).

said controller coupled to a communications interface to selectively control transmission over said communications interface of command and/or data signals as determined by said input signals processed by said controller;	said controller coupled to a communications interface to selectively control transmission over said communications interface of command and/or data signals as determined by said input signals processed by said controller,
said communications interface being operable directly to connect Said data entry device to a wireless telecommunications network, and	said communications interface being operable directly to connect said data entry device to a wireless telecommunications network, and
a display coupled to said controller to display commands and/or information under control of said input signals processed by said controller;	a display coupled to said controller to display commands and/or information under control of said input signals processed by said controller,
wherein said reading sensor, controller and display comprise a unitary assembly and said communications interface is a cellular telephone network interface and said wireless telecommunications network is a cellular telephone network and Said data entry device is integral with a cellular telephone, and	wherein said reading sensor; controller and display comprise a unitary assembly and said communications interface is a cellular telephone network interface and said wireless telecommunications network is a cellular telephone network and said data entry device is integral with a cellular telephone, and
wherein said controller is responsive to a said command to cause downloading of information from a remote processing center as required for updating information previously stored in said data entry device.	wherein said controller is responsive to a said command to cause downloading of information from a remote processing center as required for updating information previously stored in said data entry device,
21. A data entry device according to any of claims 1, 2 or 3,	
[and] comprising a carrier or a display for a plurality of data and/or command codes for association with means for displaying a plurality of selectable items,	and comprising a carrier or a display for a plurality of data and/or command codes for association with means for displaying a plurality of selectable items,
wherein said carrier carries a plurality of codes, each for a respective one of a plurality of natural language and/or numeric characters and a plurality of commands for controlling operation of said data entry device or a merchandising system, each code being associated with a visual representation of the corresponding natural language or numeric character or command and/or of a graphical representation thereof, wherein said codes are bar and/or dot codes and/or other product identifications.	wherein said carrier carries a plurality of codes, each for a respective one of a plurality of natural language and/or numeric characters and a plurality of commands for controlling operation of said data entry device or a merchandising system, each code being associated with a visual representation of the corresponding natural language or numeric character or command and/or of a graphical representation thereof, wherein said codes are bar and/or dot codes and/or other product identifications.

115. Additionally, DataQuill's 2010 letter to Google also informed Google that "LG Electronics, Motorola, Inc. [and] Samsung Electronics Co., Ltd." had "settled and entered into licenses" with DataQuill. Ex. B at 2. Google thereby was aware (or willfully blind) that third-party smartphone and tablet manufacturers (*e.g.*, LGE, Motorola, and Samsung) who were

licensees of Android OS and produced smartphones and tablets incorporating Android OS, also infringed the ’304 patent.

116. Google was aware (or willfully blind) that insofar as LGE, Motorola, and Samsung Android phones and tablets infringed the ’304 patent, and Google’s own smartphone infringed the ’304 patent, that other third-party manufacturers’ Accused Third-Party Smartphones and/or Accused Third-Party Tablets incorporating Android OS also infringed the ’304 patent.

117. While knowing (or being willfully blind) that Accused Third-Party Smartphones and/or Accused Third-Party Tablets incorporating Android OS infringed the Patent-in-Suit, Google continued to induce third-party smartphone and tablet manufacturers to infringe the ’304 patent by licensing, selling, and/or providing Android OS and other support materials and services (*see, e.g.,* Ex. C, Attach. 1-2) to third-party smartphone manufacturers besides LGE, Motorola, and Samsung, and by advertising Android OS (*see, e.g.,* Ex. C, Attach. 3-4).

118. On information and belief, Google induced third-party companies to infringe the Patent-in-Suit including without limitation Toshiba, Panasonic, Casio, Dell, and Lenovo. DataQuill reserves the right to discover and pursue all such additional induced sales by third-party manufacturers.

119. Despite Google’s awareness of the Patent-in-Suit, Google has continued these acts of inducement with specific intent to cause and encourage direct infringement of the Patent-in-Suit or with willful blindness that such activities occurred and constitute direct infringement of the Patent-in-Suit. Google had a financial interest in third-party smartphone and/or tablet manufacturers installing Android OS on Accused Smartphones and/or Accused Tablets because Google derived revenue including without limitation from advertising on Android smartphones

and tablets and from purchases through the Google Play app store. As a result, "The Play Store app comes installed on Android devices that support Google Play." Ex. C, Attach. 9.

120. Google is thus liable for infringement of the '304 Patent under 35 U.S.C. § 271(b).

121. Google is liable as a contributory infringer because Google indirectly infringed claims of the Patent-in-Suit in this judicial district and elsewhere in the United States by, among other things, contributing to the direct infringement by others including, without limitation, by third-party mobile device manufacturers that made, used, offered for sale, sold and/or imported, in this District and elsewhere in the United States, Accused Third-Party Smartphones and/or Accused Third-Party Tablets knowing that the combination of Google Play for Android OS infringed the Patent-in-Suit.

122. Google contributed to this direct infringement by making, offering to sell, selling and/or importing into the United States, a component of a patented machine, or manufacture or combination, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringing the '304 Patent and not staple article or commodity of commerce suitable for substantial non-infringing use. *See, e.g.*, Ex. C, Attach. 1 to 2. For example, the Google Play app for Android OS is a component of a patented machine, manufacture, or combination. *See* Ex. C, Attach. 1-2 (stating Google requires OEM Android manufacturers to install Google Play); Ex. C, Attach. 9 ("The Play Store app comes installed on Android devices that support Google Play."). Furthermore, the Google Play app for Android OS is a material part of the claimed inventions and upon information and belief not a staple article or commodity of commerce suitable for substantial non-infringing use at least because Google Play

for Android OS was distributed by Google with all the features of the material part of the Patent-in-Suit.

123. These third-party mobile device manufacturers and their retailers and end users of Accused Third-Party Smartphones and Accused Third Party Tablets have directly infringed the Patent-in-Suit by making, using, selling, offering for sale, and/or importing Accused Third-Party Smartphones and Accused Third-Party Tablets in this District and elsewhere in the United States in direct infringement of the Patent-in-Suit *inter alia* for the same reasons alleged in paragraphs 39-54, 55-81.

124. Google has been on notice of the ’304 Patent, including that the combination of the Accused Third-Party Smartphones and/or Accused Third-Party Tablets including Google’s contributions thereto infringed the Patent-in-Suit, since receiving a notice letter in January 2010 and knew and intended or was willfully blind (at least since receiving such notice) that Google’s continued actions actively contributed to infringing the ’304 Patent’s claims.

125. Google has been on notice of the ’304 Patent because of DataQuill’s litigation against major manufacturers of Android smartphones and tablets including HTC, Huawei, TCL, and ZTE and including the jury verdict against ZTE, and Google has known and intended or has been willfully blind that Google’s continued actions would actively contribute to infringing the ’304 Patent’s claims.

126. Google may have infringed the ’304 Patent through other components utilizing the same or reasonably similar functionality, including other versions of the Google Play app system. DataQuill reserves the right to discover and pursue all such additional infringing software/devices.

127. Google is thus liable for infringement of the ’304 Patent under 35 U.S.C. §

271(c).

128. As a result of its infringement of the '304 Patent, Google has damaged DataQuill. Google is liable to DataQuill in an amount to be determined at trial that adequately compensates DataQuill for the infringement, which by law can be no less than a reasonable royalty.

129. Because Google knew of the '304 Patent and its infringement thereof (as detailed above), Google's infringement of the '304 Patent is therefore willful and deliberate, entitling DataQuill to increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

JURY DEMAND

DataQuill demands a trial by jury on all issues that may be so tried.

REQUEST FOR RELIEF

WHEREFORE, Plaintiff DataQuill requests that this Court enter judgment in its favor and against Defendants Google LLC and Alphabet, Inc. as follows:

A. Adjudging, finding, and declaring that Google has infringed the Patent-in-Suit under 35 U.S.C. § 271;

B. Awarding the past damages arising out of Google's infringement of the Patent-in-Suit to DataQuill in an amount no less than a reasonable royalty, together with prejudgment and post-judgment interest, in an amount according to proof;

C. Adjudging, finding, and declaring that Google's infringement is willful and awarding enhanced damages and fees as a result of that willfulness under 35 U.S.C. § 284;

D. Adjudging, finding, and declaring that the Patent-in-Suit is valid and enforceable;

E. Awarding attorneys' fees, costs, or other damages pursuant to 35 U.S.C. §§ 284 or 285 or as otherwise permitted by law; and

F. Granting DataQuill such other further relief as is just and proper, or as the Court deems appropriate.

Dated: November 9, 2021

Respectfully submitted,

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