UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

PARUS HOLDINGS INC., Plaintiff, v. GOOGLE LLC, Defendant.	)	Civil Action No. 6:19-cv-00433-ADA **JURY TRIAL DEMANDED**

PARUS HOLDING INC.'S
FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Parus Holdings Inc. ("Parus" or "Plaintiff") for its First Amended Complaint for Patent infringement ("Amended Complaint") against Google, LLC ("Google"), hereby alleges as follows:

THE PARTIES

1. Plaintiff Parus Holdings Inc. is a Delaware corporation having its principal place of business at 3000 Lakeside Drive, Suite 110S, Bannockburn, IL 60015.

2. Parus is a privately-held company founded in 1997 that offers for sale and sells a number of voice-driven technology and speech search solutions to allow customers to spend less time managing their communication channels by allowing customers to search the Internet with their voice and receive audible search results back. These products include ParusSpeak™ Interactive Voice Response (IVR), ParusOne™ Unified Communications, ParusOffice™ Cloud PBX, and ParusMobile™ Mobile Applications. *See* https://www.parus.ai/products/. Parus's

brands include Parus, obai, Webley, Webley MD, and Parus Interactive. Parus's voice-enabled search technology is in competition with Google Products implementing Google Assistant.

3. Parus is the owner by assignment of U.S. Patent No. 7,076,431 ("the '431 Patent") (attached as Exhibit 1) and U.S. Patent No. 9,451,084 ("the '084 Patent") (attached as Exhibit 2).

4. Defendant Google LLC is a Delaware corporation with a principal place of business located at 1600 Ampitheatre Parkway, Mountain View, California 94043.

5. Google is registered to do business in Texas and can be served via its registered agent, Corporation Service Company dba CSC – Lawyers Incorporating Service Company at 211 East 7th Street, Suite 620, Austin, Texas 78701-3218.

6. Google maintains a permanent physical presence within the Western District of Texas, conducting business from at least its locations at: 9606 North Mo-Pac Expressway, Suite 700, Austin, Texas 78759; 500 West 2nd Street, Suite 2000, Austin, Texas 78701; 4100 Smith School Road, Austin, Texas 78744; as well as other locations in and around the Austin area.

7. Google has also recently signed a lease for an entire 35-story tower under construction at West Cesar Chavez and Nueces streets in downtown Austin, Texas.

8. Google currently employs more than 800 people in Austin, Texas.

9. Google has placed or contributed to placing infringing products like the Google Pixel 3 into the stream of commerce via an established distribution channel knowing or understanding that such products would be sold and used in the United States, including in the Western District of Texas. On information and belief, Google also has derived substantial revenues from infringing acts in the Western District of Texas, including from the sale and use of infringing products like the Google Pixel 3.

10. Defendant had constructive notice of the ’431 Patent based on Parus’s marking at least as of June 18, 2007.

11. Defendant had constructive notice of the ’084 Patent based on Parus’s marking at least as of February 21, 2018.

JURISDICTION AND VENUE

12. This is an action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code. Accordingly, this Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

13. This Court has specific personal jurisdiction over Defendant at least in part because Defendant conducts business in this Judicial District. Parus’s causes of action arise, at least in part, from Defendant’s contacts with and activities in the State of Texas and this Judicial District. Upon information and belief, Defendant has committed acts of infringement within the State of Texas and this Judicial District by, *inter alia*, directly and/or indirectly using, selling, offering to sell, or importing products that infringe one or more claims of the ’431 Patent and/or the ’084 Patent.

14. Defendant has committed acts within this District giving rise to this action, and has established sufficient minimum contacts with the State of Texas such that the exercise of jurisdiction would not offend traditional notions of fair play and substantial justice.

15. Venue is proper in this Judicial District pursuant to 28 U.S.C. § 1391(b), (c), and 1400(d) because (1) Defendant has done and continues to do business in this Judicial District, and (2) Defendant has committed and continues to commit acts of patent infringement in this Judicial District by, *inter alia*, directly and/or indirectly using, selling, offering to sell, or importing products that infringe one or more claims of the ’431 Patent and/or the ’084 Patent.

COUNT I

GOOGLE'S INFRINGEMENT OF U.S. PATENT NO. 7,076,431

16. Parus restates and incorporates by reference all of the allegations made in the preceding paragraphs as though fully set forth herein.

17. Parus is the owner, by assignment, of U.S. Patent No. 7,076,431. A true copy of U.S. Patent No. 7,076,431 granted by the U.S. Patent & Trademark Office is attached as Exhibit 1.

18. Defendant Google has directly infringed, and is continuing to directly infringe, literally or under the doctrine of equivalents, at least independent claim 1 of Parus's '431 Patent by making, using, selling, and/or offering for sale its Google Pixel products operating the Android operating system, including Google Assistant, in the United States, in violation of 35 U.S.C. § 271(a).

19. Defendant Google has had actual knowledge of the '431 Patent at least as early as April 2007.

20. In April 2007, Parus Interactive provided a confidential management presentation to Defendant Google. This confidential presentation included an overview of Parus, its business, and its technology. This presentation also included an intellectual property overview comprising a general summary of Parus's patents and applications in the United States, Canada, and Europe, including specific identification of the '431 Patent. Parus also specifically noted in this presentation that its '431 Patent potentially covered voice activated web browsing and it still had pending patent applications to cover its technology.

21. Subsequent to this presentation, Patent Counsel at Google, including a technical team, assessed Parus's patents and evaluated the opportunity to license and/or purchase Parus's patents, but later declined the opportunity.

22. Defendant Google's acts of direct infringement of the '431 Patent, post pre- and post-filing of this Complaint, are willful, and have caused and will continue to cause substantial damage and irreparable harm to Parus, and Parus has no adequate remedy at law.

23. Various products with Google Assistant made or sold by Google directly infringe at least independent claim 1 of the '431 Patent. Those Google products include at least the Google Pixel 1, the Google Pixel 2, and the Google Pixel 3 (Google Accused Products).

24. The Google Accused Products in conjunction with Google Assistant is a system for retrieving information from pre-selected web sites by uttering speech commands into a voice enabled device and for providing to users retrieved information in an audio form via said voice enabled device.

25. The Google Pixel 3 in conjunction with Google Assistant practice this claim. *See e.g.*, Andrew Nusca, *How voice recognition will change the world* (Nov. 4, 2011), *available at* https://www.zdnet.com/article/how-voice-recognition-will-change-the-world/, Gene Munster, Will Thompson, *Annual Digital Assistant IQ Test – Siri, Google Assistant, Alexa, Cortana* (Jul. 25, 2018), *available at* https://loupventures.com/annual-digital-assistant-iq-test-siri -google-assistant-alexa-cortana/, Extending the assistant (Jan. 29, 2019), *available at* https://developers.google.com/actions/extending-the-assistant, Voice Browsing (Jan. 29, 2019), *available at* https://www.w3.org/standards/webofdevices/voice, How Search organizes information (Jan. 29, 2019), *available at* https://www.google.com/search/howsearchworks/crawling-indexing/.

26. Google Assistant is built-in to Google products including the Google Pixel and Google Pixel XL line of cell phones. *See, e.g.*, https://assistant.google.com/platforms/phones/. Google provides technical support for the Google Assistant virtual assistant on its websites instructing users, for example, how to use Google Assistant on a voice-enabled device in such a manner that infringes the asserted patents. *See, e.g.*, https://support.google.com/assistant/?hl=en#topic=7546466 ("How can we help you?"); https://assistant.google.com/learn/ ("Google Assistant is ready to help, anytime, anywhere.").

27. The Google Pixel 3 in conjunction with Google Assistant includes both a top and bottom microphone. *See e.g.*, https://support.google.com/pixelphone/answer/7157629?hl=en.

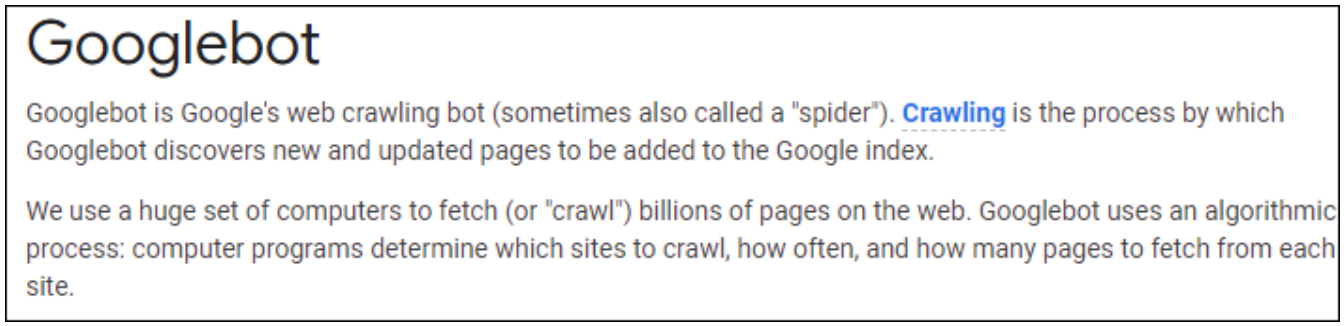
28. The Google Pixel 3 in conjunction with Google Assistant is a system for retrieving information from pre-selected web sites by uttering speech commands into a voice enabled device. Google touts the Google Assistant on its web pages.

See e.g., https://store.google.com/us/category/phones?hl=en-US.

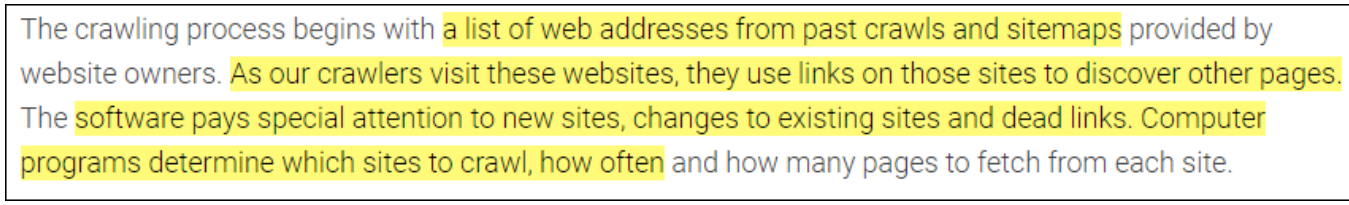
29. Google indicates that the Google Pixel 3 in conjunction with Google Assistant will "help you find answers and control your phone and compatible smart home devices – all

with a simple squeeze or by using your voice." *See e.g.*, https://www.blog.google/products/pixel/google-pixel-3/.

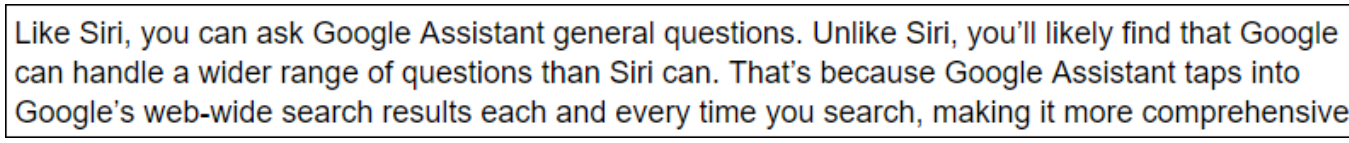
30. Google Assistant retrieves information from pre-selected websites that have already been crawled by the Googlebot.



See e.g., https://support.google.com/webmasters/answer/182072.

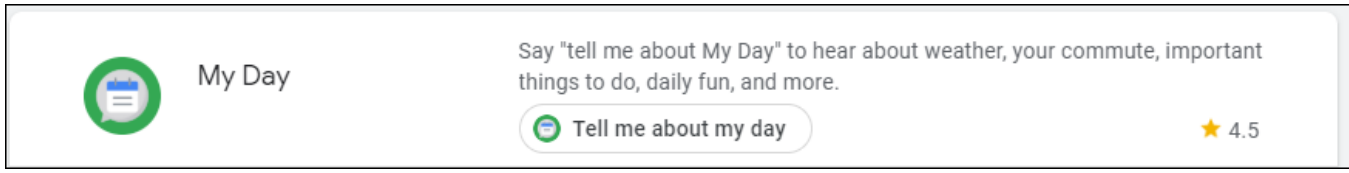


See e.g., https://www.google.com/search/howsearchworks/crawling-indexing/.



See e.g., https://searchengineland.com/google-assistant-guide-270312.

31. The retrieved information is in an audio form via said voice enabled device. For example, Google indicates that one can "**hear** about weather, your commute, important things to do, daily fun, and more."



See e.g., https://assistant.google.com/explore?hl=en_us.

32. The Google Accused Products in conjunction with Google Assistant includes a computer, said computer operatively connected to the internet. For example, the Google Pixel 3 includes a Qualcomm® Snapdragon™ 845 processor. *See e.g.*, https://store.google.com/us/product/pixel_3_specs?hl=en-US. The Google Pixel 3 in conjunction with Google Assistant is operatively connected to the internet. For example, the Google Pixel 3 includes both Wi-Fi connectivity as well as cellular connectivity. *See id.*

33. The Google Accused Products in conjunction with Google Assistant includes a voice enabled device operatively connected to said computer, said voice enabled device configured to receive speech commands from users. For example, the Google Pixel 3 has two microphones that are operatively connected to the Google Pixel 3. *See e.g.*, https://support.google.com/pixelphone/answer/7157629?hl=en. Further, the microphones operatively connected to the Google Pixel 3 are configured to receive speech commands from users. *See.g.*, https://store.google.com/us/category/phones?hl=en-US.

34. Google indicates that the Pixel 3 in conjunction with Google Assistant will "help you find answers and control your phone and compatible smart home devices – all with a simple squeeze or by using your voice." *See e.g.*, https://www.blog.google/products/pixel/google-pixel-3/. the Google Pixel 3 in conjunction with Google Assistant can handle these commands on the phone itself or with help from the cloud.

> Bringing the best AI experiences to Pixel 3 involved some re-thinking from the ground up. Our phones are powerful computers with multiple sensors which enable new helpful and secure experiences when data is processed on your device. These AI-powered features can work offline and don't require a network connection. And they can keep data on device, private to you. With Pixel 3, we complement our traditional approach to AI, where machine learning and data processing is done in the cloud, with reliable, accessible AI on device, when you're on the go.

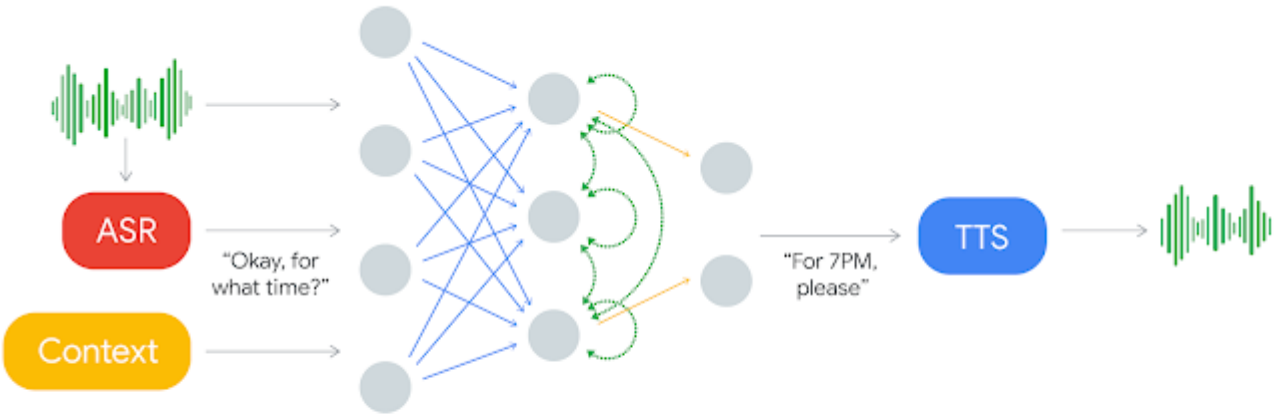
See e.g., https://blog.google/products/pixel/pixel-3-and-device-ai-putting-superpowers-your-pocket/. *See also*, https://www.zdnet.com/article/how-voice-recognition-will-change-the-world/.

35. The Google Accused Products in conjunction with Google Assistant includes at least one speaker-independent speech recognition device, said speaker-independent speech recognition device operatively connected to said computer and to said voice enabled device.

36. For example, the Google Pixel 3 in conjunction with Google Assistant can handle voice commands on the device itself or with help from the cloud. *See e.g.*, https://blog.google/products/pixel/pixel-3-and-device-ai-putting-superpowers-your-pocket/.

> For users, Google Duplex is making supported tasks easier. Instead of making a phone call, the user simply interacts with the Google Assistant, and the call happens completely in the background without any user involvement.
>
> 
>
>
> A user asks the Google Assistant for an appointment, which the Assistant then schedules by having Duplex call the business.

See e.g., https://ai.googleblog.com/2018/05/duplex-ai-system-for-natural-conversation.html.



Incoming sound is processed through an ASR system. This produces text that is analyzed with context data and other inputs to produce a response text that is read aloud through the TTS system.

See id.

37. The Google Accused Products in conjunction with Google Assistant includes at least one speech synthesis device, said speech synthesis device operatively connected to said computer and to said voice enabled device.

38. For example, the Google Pixel 3 in conjunction with Google Assistant can handle voice commands on the device itself or with help from the cloud and produce an audio response.

> Bringing the best AI experiences to Pixel 3 involved some re-thinking from the ground up. Our phones are powerful computers with multiple sensors which enable new helpful and secure experiences when data is processed on your device. These AI-powered features can work offline and don't require a network connection. And they can keep data on device, private to you. With Pixel 3, we complement our traditional approach to AI, where machine learning and data processing is done in the cloud, with reliable, accessible AI on device, when you're on the go.

See e.g., https://blog.google/products/pixel/pixel-3-and-device-ai-putting-superpowers-your-pocket/.

39. The Google Accused Products in conjunction with Google Assistant includes at least one instruction set for identifying said information to be retrieved, said instruction set being associated with said computer.

40. For example, because the Google Pixel 3 in conjunction with Google Assistant can handle voice commands on the device itself or with help from the cloud, there is an instruction set for identifying said information to be retrieved, said instruction set being associated with said computer. See e.g., https://blog.google/products/pixel/pixel-3-and-device-ai-putting-superpowers-your-pocket/. See also, https://ai.googleblog.com/2018/05/duplex-ai-system-for-natural-conversation.html.

41. The Google Accused Products in conjunction with Google Assistant includes at least one instruction set for identifying said information to be retrieved comprising a plurality of pre-selected web site addresses, each said web site address identifying a web site containing said information to be retrieved.

42. For example, Google indicates that the Pixel 3 in conjunction with Google Assistant retrieves information from pre-selected websites that have already been crawled by the Googlebot.

> **Googlebot**
>
> Googlebot is Google's web crawling bot (sometimes also called a "spider"). **Crawling** is the process by which Googlebot discovers new and updated pages to be added to the Google index.
>
> We use a huge set of computers to fetch (or "crawl") billions of pages on the web. Googlebot uses an algorithmic process: computer programs determine which sites to crawl, how often, and how many pages to fetch from each site.

See e.g., https://support.google.com/webmasters/answer/182072.

> Before you search, web crawlers gather information from across hundreds of billions of webpages and organize it in the Search index.

See e.g., https://www.google.com/search/howsearchworks/crawling-indexing/.

> When crawlers find a webpage, our systems render the content of the page, just as a browser does. We take note of key signals — from keywords to website freshness — and we keep track of it all in the Search index. The Google Search index contains hundreds of billions of webpages and is well over 100,000,000 gigabytes in size. It's like the index in the back of a book — with an entry for every word seen on every web page we index. When we index a web page, we add it to the entries for all of the words it contains.

See id.

> Like Siri, you can ask Google Assistant general questions. Unlike Siri, you'll likely find that Google can handle a wider range of questions than Siri can. That's because Google Assistant taps into Google's web-wide search results each and every time you search, making it more comprehensive.

See e.g., https://searchengineland.com/google-assistant-guide-270312.

43. Google uses technology to crawl the web to index web sites with information to respond to a search request. The indexed websites are identified by web site addresses. These indexed websites are "a plurality of pre-selected web site addresses," and each such website "indentif[ies] a web site containing said information to be retrieved.

44. The Google Accused Products in conjunction with Google Assistant includes at least one recognition grammar associated with said computer, each said recognition grammar corresponding to each said instruction set and corresponding to a speech command.

45. For example, because the Google Pixel 3 in conjunction with Google Assistant can handle voice commands on the device itself or with help from the cloud, there is a recognition grammar corresponding to each said instruction set and corresponding speech command. See e.g., https://blog.google/products/pixel/pixel-3-and-device-ai-putting-superpowers-your-pocket/. See also, https://ai.googleblog.com/2018/05/duplex-ai-system-for-natural-conversation.html.

46. The Google Accused Products in conjunction with Google Assistant includes said speech command comprising an information request selectable by the user.

47. The Google Pixel 3 in conjunction with Google Assistant is a system for retrieving information from pre-selected web sites by uttering speech commands into a voice enabled device. Google touts the Google Assistant on its web pages. *See e.g.*, https://store.google.com/us/category/phones?hl=en-US.

48. Google indicates that the Google Pixel 3 in conjunction with Google Assistant will "help you find answers and control your phone and compatible smart home devices – all with a simple squeeze or by using your voice."

> The Google Assistant is also baked into Pixel 3 to help you find answers and control your phone and compatible smart home devices—all with a simple squeeze or by using your voice. This year we have two new Assistant features coming to Pixel.

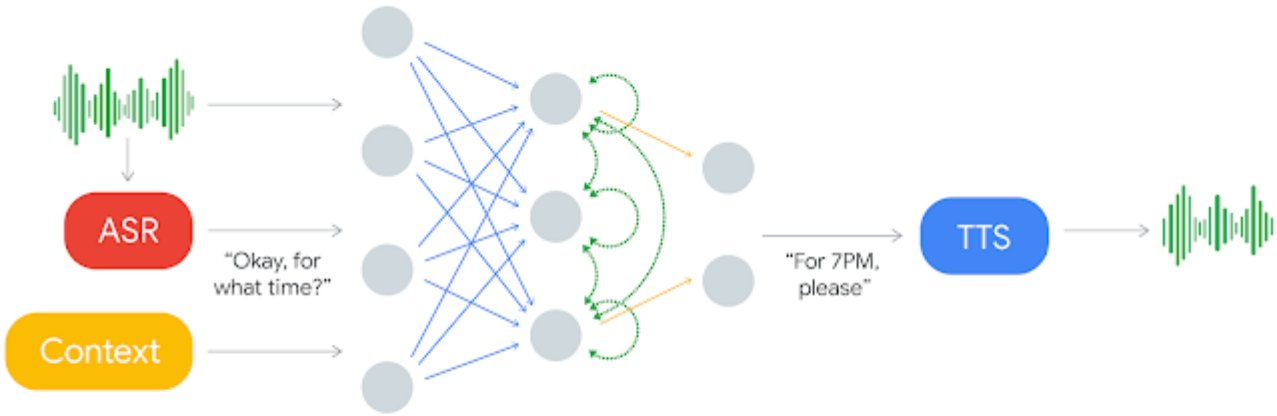
See e.g., https://www.blog.google/products/pixel/google-pixel-3/.

49. The Google Accused Products in conjunction with Google Assistant includes said speaker-independent speech recognition device configured to receive from users via said voice enabled device said speech command and to select the corresponding recognition grammar upon receiving said speech command.

50. For example, because the Google Pixel 3 in conjunction with Google Assistant can handle voice commands on the device itself or with help from the cloud, there is a recognition grammar corresponding to each said instruction set and corresponding speech command.

> Bringing the best AI experiences to Pixel 3 involved some re-thinking from the ground up. Our phones are powerful computers with multiple sensors which enable new helpful and secure experiences when data is processed on your device. These AI-powered features can work offline and don't require a network connection. And they can keep data on device, private to you. With Pixel 3, we complement our traditional approach to AI, where machine learning and data processing is done in the cloud, with reliable, accessible AI on device, when you're on the go.

See e.g., https://blog.google/products/pixel/pixel-3-and-device-ai-putting-superpowers-your-pocket/.



Incoming sound is processed through an ASR system. This produces text that is analyzed with context data and other inputs to produce a response text that is read aloud through the TTS system.

See e.g., https://ai.googleblog.com/2018/05/duplex-ai-system-for-natural-conversation.html.

51. The Google Accused Products in conjunction with Google Assistant includes said computer configured to retrieve said instruction set corresponding to said recognition grammar selected by said speaker-independent speech recognition device.

52. For example, because the Google Pixel 3 in conjunction with Google Assistant can handle voice commands on the device itself or with help from the cloud, there is a

recognition grammar corresponding to each said instruction set and corresponding speech command. *See e.g.*, https://blog.google/products/pixel/pixel-3-and-device-ai-putting-superpowers-your-pocket/. *See also*, https://ai.googleblog.com/2018/05/duplex-ai-system-for-natural-conversation.html.

53. The Google Accused Products in conjunction with Google Assistant includes said computer further configured to access at least one of said plurality of web sites identified by said instruction set to obtain said information to be retrieved, aid computer configured to first access said first web site of said plurality of web sites and, if said information to be retrieved is not found at said first web site, said computer configured to sequentially access said plurality of web sites until said information to be retrieved is found or until said plurality of web sites has been accessed.

54. The Google Pixel 3 in conjunction with Google Assistant is a system for retrieving information from pre-selected web sites by uttering speech commands into a voice enabled device. For example, Google touts the Google Assistant on its web pages. *See e.g.*, https://store.google.com/us/category/phones?hl=en-US.

55. Google indicates that the Google Pixel 3 in conjunction with Google Assistant will "help you find answers and control your phone and compatible smart home devices – all with a simple squeeze or by using your voice." *See e.g.*, https://www.blog.google/products/pixel/google-pixel-3/.

56. Google Assistant retrieves information from pre-selected websites that have already been crawled by the Googlebot.

> **Googlebot**
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> Googlebot is Google's web crawling bot (sometimes also called a "spider"). **Crawling** is the process by which Googlebot discovers new and updated pages to be added to the Google index.
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> We use a huge set of computers to fetch (or "crawl") billions of pages on the web. Googlebot uses an algorithmic process: computer programs determine which sites to crawl, how often, and how many pages to fetch from each site.

See e.g., https://support.google.com/webmasters/answer/182072.

> Before you search, web crawlers gather information from across hundreds of billions of webpages and organize it in the Search index.

See e.g., https://www.google.com/search/howsearchworks/crawling-indexing/.

> The crawling process begins with a list of web addresses from past crawls and sitemaps provided by website owners. As our crawlers visit these websites, they use links on those sites to discover other pages. The software pays special attention to new sites, changes to existing sites and dead links. Computer programs determine which sites to crawl, how often and how many pages to fetch from each site.

See id.

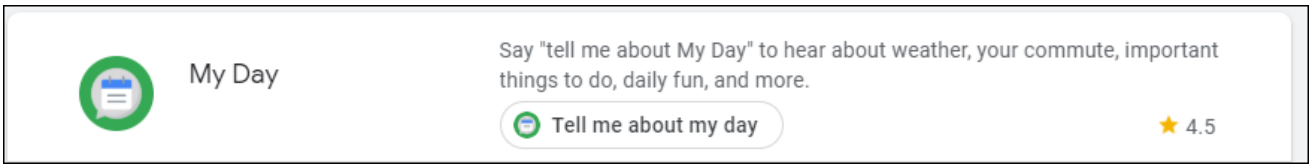
> Like Siri, you can ask Google Assistant general questions. Unlike Siri, you'll likely find that Google can handle a wider range of questions than Siri can. That's because Google Assistant taps into Google's web-wide search results each and every time you search, making it more comprehensive.

See e.g., https://searchengineland.com/google-assistant-guide-270312.

57. Google uses technology to discover and index web sites that have information that is subsequently used to respond to search requests. Upon receiving a specific search request, Google's search algorithms are configured to access the plurality of web sites in some "sequential" order (as by the ranking order of the websites, the ranking order specifies a sequence) until information pertinent to the request is found or until the web sites (in the ranking order defined) are accessed to find specific information to respond to the specific search request; Google's operations meet the claimed recitation "said computer further configured to access at least one of said plurality of web sites identified by said instruction set to obtain said information

to be retrieved" and "said computer configured to first access said first web site of said plurality of web sites" and if the information is not found at the first web site, Google's search algorithms sequentially access the websites until the information is retrieved or until all the sources are considered.

58. The Google Accused Products in conjunction with Google Assistant includes said speech synthesis device configured to produce an audio message containing any retrieved information from said pre-selected web sites, and said speech synthesis device further configured to transmit said audio message to said users via said voice enabled device.



See e.g., https://assistant.google.com/explore?hl=en_us.

59. In addition to directly infringing the '431 Patent, Defendant Google indirectly infringes the '431 Patent pursuant to 35 U.S.C. § 271(b) and (c). Defendant Google has had actual knowledge of the '431 Patent since at least April 2007. By the time of trial, Defendant Google will have known and intended (since receiving such notice) that their continued actions would actively induce the infringement of the claims of the '431 Patent.

60. Defendant Google by instructing, directing and/or requiring others, including customers, purchasers, users and developers, to perform one or more of the steps of the method claims, either literally or under the doctrine of equivalents, of the '431 Patent, where all the steps of the method claims are performed by either the Defendant, its customers, purchasers, users, and developers, or some combination thereof. Defendant knew or should have known that it was inducting others, including customers, purchasers, users, and developers, to infringe by practicing one or more method claims of the '431 Patent.

61. Upon information and belief, Defendant Google knowingly and actively aided and abetted the direct infringement of the ’431 Patent by instructing and encouraging its customers, purchasers, users, and developers to use the ’431 Patent methods and technology. These instructions of encouragement include, but are not limited to, using the accused products as described in the claims of the ’431 Patent, in advertising and promoting the use of the ’431 Patent’s claimed technology, and as further described above.

62. Defendant Google has also infringed, and continues to infringe, claims of the ’431 Patent by offering to commercially distribute, commercially distributing, making and/or importing the Google Accused Products, which are used in practicing the process, or using the systems, of the ’431 Patent, and constitute a material part of the invention. Defendant Google knows the components in the Google Accused Products to be especially made or especially adapted for use in infringement of the ’431 Patent, not a staple article, and not a commodity of commerce suitable for substantial noninfringing use. For example, the ordinary way of using the Google Accused Products infringes the patent claims, and as such, is especially adapted for use in infringement as set forth above. Accordingly, Defendant Google has been, and currently is, contributorily infringing the ’431 Patent, in violation of 35 U.S.C. § 271(c).

COUNT II

GOOGLE’S INFRINGEMENT OF U.S. PATENT NO. 9,451,084

63. Parus restates and incorporates by reference all of the allegations made in the preceding paragraphs as though fully set forth herein.

64. Parus is the owner, by assignment, of U.S. Patent No. 9,451,084. A true copy of U.S. Patent No. 9,451,084 granted by the U.S. Patent & Trademark Office is attached as Exhibit 2.

65. Defendant Google has directly infringed, and is continuing to directly infringe, literally or under the doctrine of equivalents, at least independent claim 1 of Parus's '084 Patent by making, using, selling, and/or offering for sale its Google Pixel products operating the Android operating system, including Google Assistant, in the United States, in violation of 35 U.S.C. § 271(a).

66. As detailed above, Defendant Google has had actual knowledge of the '431 Patent at least as early as April 2007.

67. The above-referenced confidential management presentation also stated that, in addition to issued patents, Parus had U.S. patent applications pending.

68. The '084 Patent is a child of the '431 Patent.

69. Based at least on the above-referenced confidential management presentation, Defendant Google had actual knowledge of, or should have had knowledge and has been willfully blind to its infringement of, the '084 Patent since at least as early as the date of issuance of the '084 Patent.

70. Defendant Google's acts of direct infringement of the '084 Patent, both pre- and post-filing of this Complaint, are willful, and have caused and will continue to cause substantial damage and irreparable harm to Parus, and Parus has no adequate remedy at law.

71. The Google Accused Products in conjunction with Google Assistant form a system for acquiring information from one or more sources maintaining a listing of web sites by receiving speech commands uttered by users into a voice-enabled device and for providing information retrieved from the web sites to the users in an audio form via the voice-enabled device. The following exemplary documents provide support to demonstrate the Google Pixel 3 in conjunction with Google Assistant practices this claim: Andrew Nusca, How voice

recognition will change the world (Nov. 4, 2011), available at https://www.zdnet.com/article/how-voice-recognition-will-change-the-world/, Gene Munster, Will Thompson, Annual Digital Assistant IQ Test – Siri, Google Assistant, Alexa, Cortana (Jul. 25, 2018), available at https://loupventures.com/annual-digital-assistant-iq-test-siri -google-assistant-alexa-cortana/, Extending the assistant (Jan. 29, 2019), available at https://developers.google.com/actions/extending-the-assistant, and Voice Browsing (Jan. 29, 2019), available at https://www.w3.org/standards/webofdevices/voice, How Search organizes information (Jan. 29, 2019), available at https://www.google.com/search/howsearchworks/crawling-indexing/.

72. Google Assistant is built-in to Google products including the Google Pixel and Google Pixel XL line of cell phones. *See, e.g.*, https://assistant.google.com/platforms/phones/. Google provides technical support for the Google Assistant virtual assistant on its websites instructing users, for example, how to use Google Assistant on a voice-enabled device in such a manner that infringes the asserted patents. *See, e.g.*, https://support.google.com/assistant/?hl=en#topic=7546466 ("How can we help you?"); https://assistant.google.com/learn/ ("Google Assistant is ready to help, anytime, anywhere.").

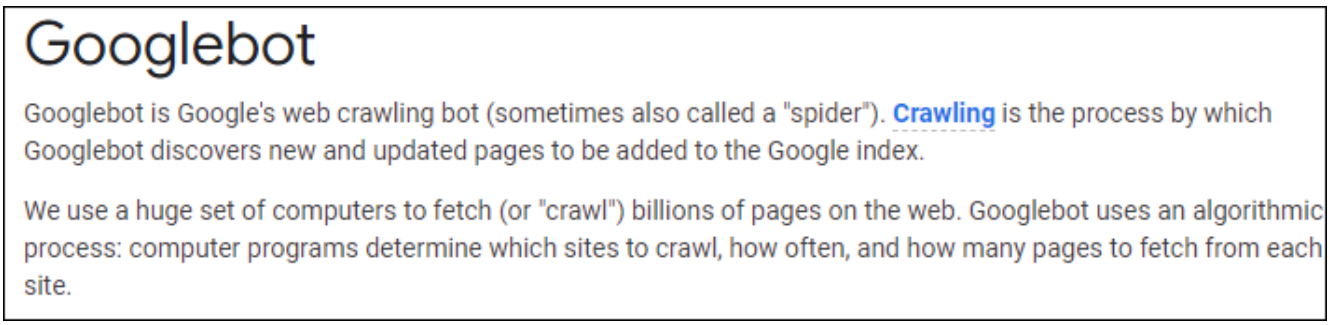
73. The Google Pixel 3 in conjunction with Google Assistant is a voice enabled device because the Google Pixel 3 includes both a top and bottom microphone. *See e.g.*, https://support.google.com/pixelphone/answer/7157629?hl=en.

74. Further, the Google Pixel 3 in conjunction with Google Assistant is a system for retrieving information from pre-selected web sites by uttering speech commands into a voice enabled device. For example, Google touts the Google Assistant on its web pages.

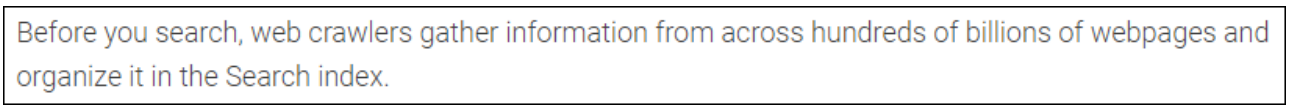
See e.g., https://store.google.com/us/category/phones?hl=en-US.

75. Google indicates that the Google Pixel 3 in conjunction with Google Assistant will "help you find answers and control your phone and compatible smart home devices – all with a simple squeeze or by using your voice." *See e.g.*,https://www.blog.google/products/pixel/google-pixel-3/, https://ai.googleblog.com/2018/05/duplex-ai-system-for-natural-conversation.html.

76. Google Assistant retrieves information from pre-selected websites that have already been crawled by the Googlebot.



See e.g.,https://support.google.com/webmasters/answer/182072



See e.g., https://www.google.com/search/howsearchworks/crawling-indexing/.

> Like Siri, you can ask Google Assistant general questions. Unlike Siri, you'll likely find that Google can handle a wider range of questions than Siri can. That's because Google Assistant taps into Google's web-wide search results each and every time you search, making it more comprehensive.

See e.g.,https://searchengineland.com/google-assistant-guide-270312. *See also*, https://www.zdnet.com/article/how-voice-recognition-will-change-the-world/.

77. The Google Accused Products in conjunction with Google Assistant include at least one computing device, the computing device operatively coupled to one or more networks.

78. For example, the Google Pixel 3 includes a Qualcomm® Snapdragon™ 845 processor. *See e.g.*, https://store.google.com/us/product/pixel_3_specs?hl=en-US. Moreover, the Google Pixel 3 is operatively connected to the internet because the Google Pixel 3 includes both Wi-Fi connectivity as well as cellular connectivity. *See e.g.*, https://store.google.com/us/product/pixel_3_specs?hl=en-US.

79. The Google Accused Products in conjunction with Google Assistant include at least one speaker-independent speech-recognition device, the speaker-independent speech-recognition device operatively connected to the computing device and configured to receive the speech commands.

80. For example, the Google Pixel 3 in conjunction with Google Assistant can handle voice commands on the device itself or with help from the cloud.

> Bringing the best AI experiences to Pixel 3 involved some re-thinking from the ground up. Our phones are powerful computers with multiple sensors which enable new helpful and secure experiences when data is processed on your device. These AI-powered features can work offline and don't require a network connection. And they can keep data on device, private to you. With Pixel 3, we complement our traditional approach to AI, where machine learning and data processing is done in the cloud, with reliable, accessible AI on device, when you're on the go.

See e.g., https://blog.google/products/pixel/pixel-3-and-device-ai-putting-superpowers-your-pocket/.

> For users, Google Duplex is making supported tasks easier. Instead of making a phone call, the user simply interacts with the Google Assistant, and the call happens completely in the background without any user involvement.
>
> 
>
>
> A user asks the Google Assistant for an appointment, which the Assistant then schedules by having Duplex call the business.

See e.g., https://ai.googleblog.com/2018/05/duplex-ai-system-for-natural-conversation.html.

81. The Google Accused Products include a memory operatively associated with the computing device with at least one instruction set for identifying the information to be retrieved, the instruction set being associated with the computing device.

82. For example, the Google Pixel 3 includes a memory containing at least one instruction and connected to the computing device. *See e.g.*, https://store.google.com/us/product/pixel_3_specs?hl=en-US. A Person of Ordinary Skill in the Art ("POSITA") would understand that this memory would be operatively coupled to the computing device and there would be at least one instruction set being associated with the

computing device stored therein. *See e.g.*, https://blog.google/products/pixel/pixel-3-and-device-ai-putting-superpowers-your-pocket/.

83. The Google Accused Products in conjunction with Google Assistant include at least one instruction set for identifying the information to be retrieved comprising a plurality of web site addresses for the listing of web sites, each web site address identifying a web site containing the information to be retrieved.

84. For example, Google indicates that the Google Pixel 3 in conjunction with Google Assistant retrieves information from websites that have already been crawled by the Googlebot.

> **Googlebot**
>
> Googlebot is Google's web crawling bot (sometimes also called a "spider"). **Crawling** is the process by which Googlebot discovers new and updated pages to be added to the Google index.
>
> We use a huge set of computers to fetch (or "crawl") billions of pages on the web. Googlebot uses an algorithmic process: computer programs determine which sites to crawl, how often, and how many pages to fetch from each site.

See e.g., https://support.google.com/webmasters/answer/182072.

> Before you search, web crawlers gather information from across hundreds of billions of webpages and organize it in the Search index.

See e.g., https://www.google.com/search/howsearchworks/crawling-indexing/.

> The crawling process begins with a list of web addresses from past crawls and sitemaps provided by website owners. As our crawlers visit these websites, they use links on those sites to discover other pages. The software pays special attention to new sites, changes to existing sites and dead links. Computer programs determine which sites to crawl, how often and how many pages to fetch from each site.

See id.

85. Google uses technology to crawl the web to index web sites with information to respond to a search request. The indexed websites are identified by web site addresses. These

indexed websites are "a plurality of web site addresses for the listing of websites," and each such website "indentif[ies] a web site containing the information to be retrieved.

> Like Siri, you can ask Google Assistant general questions. Unlike Siri, you'll likely find that Google can handle a wider range of questions than Siri can. That's because Google Assistant taps into Google's web-wide search results each and every time you search, making it more comprehensive.

See e.g., https://searchengineland.com/google-assistant-guide-270312.

86. The Google Accused Products in conjunction with Google Assistant include at least one recognition grammar associated with the computing device, each recognition grammar corresponding to each instruction set and corresponding to a speech command, the speech command comprising an information request provided by the user, the speaker-independent speech-recognition device configured to receive the speech command from the users via the voice-enabled device and to select the corresponding recognition grammar upon receiving the speech command.

87. For example, because the Google Pixel 3 in conjunction with Google Assistant can handle voice commands on the device itself or with help from the cloud, there is a recognition grammar corresponding to each said instruction set and corresponding speech command.

> Bringing the best AI experiences to Pixel 3 involved some re-thinking from the ground up. Our phones are powerful computers with multiple sensors which enable new helpful and secure experiences when data is processed on your device. These AI-powered features can work offline and don't require a network connection. And they can keep data on device, private to you. With Pixel 3, we complement our traditional approach to AI, where machine learning and data processing is done in the cloud, with reliable, accessible AI on device, when you're on the go.

See e.g., https://blog.google/products/pixel/pixel-3-and-device-ai-putting-superpowers-your-pocket/. *See also*, https://ai.googleblog.com/2018/05/duplex-ai-system-for-natural-conversation.html.

88. The Google Accused Products in conjunction with Google Assistant include the computing device configured to retrieve the instruction set corresponding to the recognition grammar provided by the speaker-independent speech-recognition device.

89. For example, because the Google Pixel 3 in conjunction with Google Assistant can handle voice commands on the device itself or with help from the cloud, there is a recognition grammar corresponding to each said instruction set and corresponding speech command.

> Bringing the best AI experiences to Pixel 3 involved some re-thinking from the ground up. Our phones are powerful computers with multiple sensors which enable new helpful and secure experiences when data is processed on your device. These AI-powered features can work offline and don't require a network connection. And they can keep data on device, private to you. With Pixel 3, we complement our traditional approach to AI, where machine learning and data processing is done in the cloud, with reliable, accessible AI on device, when you're on the go.

See e.g., https://blog.google/products/pixel/pixel-3-and-device-ai-putting-superpowers-your-pocket/. *See also*, https://ai.googleblog.com/2018/05/duplex-ai-system-for-natural-conversation.html.

90. The Google Accused Products in conjunction with Google Assistant include the computing device further configured to access at least one of the plurality of web sites identified by the instruction set to obtain the information to be retrieved, wherein the computing device is further configured to periodically search via the one or more networks to identify new web sites and to add the new web sites to the plurality of web sites, the computing device configured to

access a first web site of the plurality of web sites and, if the information to be retrieved is not found at the first web site, the computer configured to access the plurality of web sites remaining in an order defined for accessing the listing of web sites until the information to be retrieved is found in at least one of the plurality of web sites or until the plurality of web sites have been accessed.

91. The Google Pixel 3 in conjunction with Google Assistant is a system for retrieving information from web sites by uttering speech commands into a voice enabled device. For example, Google touts the Google Assistant on its web pages. *See e.g.*, https://store.google.com/us/category/phones?hl=en-US.

92. Google indicates that the Google Pixel 3 in conjunction with Google Assistant will "help you find answers and control your phone and compatible smart home devices – all with a simple squeeze or by using your voice."

> The Google Assistant is also baked into Pixel 3 to help you find answers and control your phone and compatible smart home devices—all with a simple squeeze or by using your voice. This year we have two new Assistant features coming to Pixel.

See e.g., https://www.blog.google/products/pixel/google-pixel-3/. *See also*, https://ai.googleblog.com/2018/05/duplex-ai-system-for-natural-conversation.html.

93. Google Assistant retrieves information from pre-selected websites that have already been crawled by the Googlebot.

> **Googlebot**
>
> Googlebot is Google's web crawling bot (sometimes also called a "spider"). **Crawling** is the process by which Googlebot discovers new and updated pages to be added to the Google index.
>
> We use a huge set of computers to fetch (or "crawl") billions of pages on the web. Googlebot uses an algorithmic process: computer programs determine which sites to crawl, how often, and how many pages to fetch from each site.

See e.g., https://support.google.com/webmasters/answer/182072.

> The crawling process begins with a list of web addresses from past crawls and sitemaps provided by website owners. As our crawlers visit these websites, they use links on those sites to discover other pages. The software pays special attention to new sites, changes to existing sites and dead links. Computer programs determine which sites to crawl, how often and how many pages to fetch from each site.

See e.g., https://www.google.com/search/howsearchworks/crawling-indexing/.

> When crawlers find a webpage, our systems render the content of the page, just as a browser does. We take note of key signals — from keywords to website freshness — and we keep track of it all in the Search index. The Google Search index contains hundreds of billions of webpages and is well over 100,000,000 gigabytes in size. It's like the index in the back of a book — with an entry for every word seen on every web page we index. When we index a web page, we add it to the entries for all of the words it contains.

See id.

> Like Siri, you can ask Google Assistant general questions. Unlike Siri, you'll likely find that Google can handle a wider range of questions than Siri can. That's because Google Assistant taps into Google's web-wide search results each and every time you search, making it more comprehensive.

See e.g., https://searchengineland.com/google-assistant-guide-270312.

94. Google uses technology to "crawl" the web to "index" web sites with information to respond to a search request; Google's "crawling" technology discovers "new web sites" periodically, either on its own or adds them if provided by website owners, in an effort to constantly provide updated data. Further, Google's operations access the websites in a defined order (as ranked) until the information to respond to a search request is found or until the list of information sources or websites have been considered.

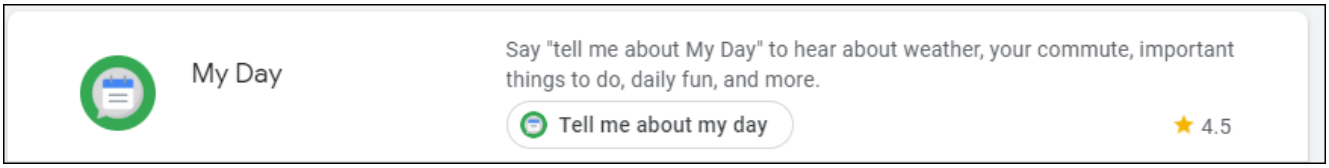
95. The Google Accused Products in conjunction with Google Assistant include the speech synthesis device configured to produce an audio message containing any retrieved information from the plurality of web sites.

96. The Google Pixel 3 in conjunction with Google Assistant forms the retrieved information into an audio form via said voice enabled device as Google indicates that one can "hear about weather, your commute, important things to do, daily fun, and more."

See e.g., https://assistant.google.com/explore?hl=en_us.

97. The Google Accused Products in conjunction with Google Assistant include the speech synthesis device further configured to transmit the audio message to the users via the voice-enabled device.

98. For example, the retrieved information is provided in audio form to the user via said voice enabled device as Google indicates that one can "hear about weather, your commute, important things to do, daily fun, and more."



See e.g., https://assistant.google.com/explore?hl=en_us.

99. In addition to directly infringing the '084 Patent, Defendant Google indirectly infringes the '084 Patent pursuant to 35 U.S.C. § 271(c). Based at least on the above-referenced confidential management presentation, Defendant Google had actual knowledge of, or should have had knowledge and has been willfully blind it its infringement of, the '084 Patent since at least as early as the date of issuance of the '084 Patent. Additionally, Defendant Google has had actual knowledge of the '084 Patent since at least the filing of this Complaint. By the time of trial, Defendant Google will have known and intended (since receiving such notice) that their continued actions would actively induce the infringement of the claims of the '084 Patent.

100. Defendant Google by instructing, directing and/or requiring others, including customers, purchasers, users and developers, to perform one or more of the steps of the method

claims, either literally or under the doctrine of equivalents, of the ’084 Patent, where all the steps of the method claims are performed by either the Defendant, its customers, purchasers, users, and developers, or some combination thereof. Defendant knew or should have known that it was inducting others, including customers, purchasers, users, and developers, to infringe by practicing one or more method claims of the ’084 Patent.

101. Upon information and belief, Defendant Google knowingly and actively aided and abetted the direct infringement of the ’084 Patent by instructing and encouraging its customers, purchasers, users, and developers to use the ’084 Patent methods and technology. These instructions of encouragement include, but are not limited to, using the accused products as described in the claims of the ’084 Patent, in advertising and promoting the use of the ’084 Patent’s claimed technology, and as further described above.

102. Defendant Google has also infringed, and continues to infringe, claims of the ’084 Patent by offering to commercially distribute, commercially distributing, making and/or importing the Google Accused Products, which are used in practicing the process, or using the systems, of the ’084 Patent, and constitute a material part of the invention. Defendant Google knows the components in the Google Accused Products to be especially made or especially adapted for use in infringement of the ’084 Patent, not a staple article, and not a commodity of commerce suitable for substantial noninfringing use. For example, the ordinary way of using the Google Accused Products infringes the patent claims, and as such, is especially adapted for use in infringement as described above. Accordingly, Defendant Google has been, and currently is, contributorily infringing the ’084 Patent, in violation of 35 U.S.C. § 271(c).

PRAYER FOR RELIEF

WHEREFORE, Parus request the Court grant the relief set forth below:

A. Enter judgment that Defendant has directly infringed, and continues to directly infringe, one or more claims of the ’431 Patent and/or the ’084 Patent;

B. Enter judgment that Defendant has induced infringement and/or contributorily infringed, and continues to induce infringement and/or contributorily infringe, one or more claims of the ’431 Patent and/or the ’084 Patent;

C. Enter judgment that Defendant’s acts of patent infringement are willful;

D. Temporarily, preliminarily, or permanently enjoin Defendant, its parents, subsidiaries, affiliates, divisions, officers, agents, servants, employees, directors, partners, representatives, all individuals and entities in active concert and/or participation with them, and all individuals and/or entities within their control from engaging in the aforesaid unlawful acts of patent infringement;

E. Order Defendant to account for and pay damages caused to Parus by Defendant’s unlawful acts of patent infringement;

F. Award Parus increased damages and attorney fees pursuant to 35 U.S.C. §§ 284 and 285;

G. Award Parus the interest and costs incurred in this action; and

H. Grant Parus such other and further relief, including equitable relief, as the Court deems just and proper.

DEMAND FOR JURY TRIAL

Plaintiff demands a jury trial for all issues deemed to be triable by a jury.

Dated: October 21, 2019

Respectfully submitted,

/s/ Michael J. McNamara w/permission
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Counsel for Plaintiff Parus Holdings Inc.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing document has been served on October 21, 2019 to all counsel of record who are deemed to have consented to electronic service via the Court's CM/ECF system.

/s/ *Andrea L. Fair*
Andrea L. Fair

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