

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

SELENE COMMUNICATION  
TECHNOLOGIES, LLC,

Plaintiff,

v.

HEWLETT-PACKARD COMPANY,

Defendant.

C.A. No. 14-535-SLR

**JURY TRIAL DEMANDED**

**FIRST AMENDED COMPLAINT**

This is an action for patent infringement in which Plaintiff, Selene Communication Technologies, LLC (“Selene”), makes the following allegations against Defendant Hewlett-Packard Company (“HP”):

**PARTIES**

1. Plaintiff Selene is a Delaware limited liability company with its principal place of business at 2961 Fontenay Road, Shaker Heights, Ohio 44120.

2. On information and belief, defendant HP is a corporation organized under the laws of the State of Delaware, with its corporate headquarters and principal place of business at 3000 Hanover Street, Palo Alto, CA 94304. HP may be served via its registered agent for service of process, The Corporation Trust Company, at Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801.

**JURISDICTION AND VENUE**

3. This action arises under the patent laws of the United States, 35 U.S.C. § 1, *et seq.*, including § 271. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

4. This Court has personal jurisdiction over HP. In addition to being a Delaware corporation, HP has conducted extensive commercial activities and continues to conduct extensive commercial activities within the State of Delaware. HP, directly and/or through intermediaries or affiliates (including HP entities, subsidiaries, distributors, sales agents, and others), offers for sale, sells, and/or advertises its products and services (including, but not limited to, the products and services that are accused of infringement in this lawsuit) in the United States, the State of Delaware, and this Judicial District. HP, directly and/or through intermediaries or affiliates (including other HP entities, subsidiaries, distributors, sales agents, and others), has purposefully and voluntarily placed one or more of its products (including, but not limited to, the products that are accused of infringement in this lawsuit), as described below in Count I, into the stream of commerce with the expectation that they will be purchased by customers in the District of Delaware. Accordingly, HP has committed the tort of patent infringement within the State of Delaware, as alleged in more detail below.

5. Venue is proper in this District under 28 U.S.C. §§ 1391(b)-(c) and 1400(b) because, among other reasons, HP is subject to personal jurisdiction in this District, and has committed and continues to commit acts of patent infringement in this District. On information and belief, for example, HP has used, sold, offered for sale, and imported infringing products/services in this District.

#### **FACTUAL BACKGROUND**

6. This lawsuit asserts causes of action for infringement of United States Patent No. 6,363,377 (the “Asserted Patent”). The inventions disclosed in the Asserted Patent were conceived and created by inventors working for a 501(c)(3) nonprofit research institute known as SRI International (“SRI”).



12. In 1988, SRI acquired the Sarnoff Corporation (“Sarnoff”). Sarnoff, formed in 1941, traces its origins to David Sarnoff, a principal technology researcher at RCA Laboratories. It was created to be a research and development company specializing in vision, video, and semiconductor technology, and it later expanded its research areas to include various facets of



information technology. Sarnoff is known for several important technological advances. For instance, in 1953, David Sarnoff and RCA Laboratories created the world’s first color television system (pictured at right, with RCA President Franklin Folsom (left) and RCA Chairman David Sarnoff (right)). From 1963 to 1968, a team of engineers at the David Sarnoff Research Center developed a revolutionary method for the electronic control of light reflected from liquid crystals—leading to their invention of the liquid crystal display (LCD). Sarnoff is also credited with the development of the electron microscope and early optoelectronic components such as lasers and LEDs.

13. In 2007, SRI spun off its creation of Siri, a virtual personal assistant with a natural language interface, as Siri, Inc. Siri was acquired by Apple Inc. in 2011.

14. SRI today is a nonprofit, independent research and innovation center serving government and industry that derives revenue from a variety of sources, including licensing. SRI employs over 2,500 employees at research facilities across the United States and abroad, including researchers at the former Sarnoff facilities in Princeton, New Jersey.

15. he Asserted Patent issued as a result of the inventiveness of SRI personnel and its significant research investment.

SELENE COMMUNICATION TECHNOLOGIES, LLC

16. Selene was created in 2011 in order to advance technological innovation by active participation in all areas of the patent market, including licensing. By creating a secondary market for SRI patents, Selene believes it is promoting innovation and providing capital to SRI that can be reinvested by SRI in further research.

17. Selene completed a transaction to, among other things, acquire the Asserted Patent from SRI in July 2013. The transaction included a non-exclusive license to the U.S. government for the patent.

UNITED STATES PATENT NO. 6,363,377

18. On March 26, 2002, the United States Patent and Trademark Office (the "PTO") duly and legally issued United States Patent No. 6,363,377 (the "'377 Patent"), entitled "Search Data Processor," listing as inventors Dina Kravets, Liviu Chiriac, Jeffrey Esakov, and Suz Hsi Wan, after a full and fair examination. A true and correct copy of the '377 Patent is attached as Exhibit A.

19. Selene is the owner of the entire right, title, and interest in and to the '377 Patent by assignment, and has the exclusive right to sue for infringement and recover damages for all past, present, and future infringement, including against HP.

20. The '377 Patent discloses and claims, among other things, novel methods and systems for refining, filtering, and organizing search queries and search results. The '377 Patent teaches inventions that are fundamental to modern methods and systems for use with search engines, including, but not limited to, the implementation of auto-generated alternative search queries. By way of example only, Claim 1 recites one of the inventions disclosed in the '377 Patent:

1. A method for generating search queries to be sent to a search engine for searching a information management system, comprising the steps of:

- a) receiving an initial search query;
- b) converting the initial search query to general boolean language;
- c) identifying a level in a respective hierarchy tree for each search query item in the initial search query;
- d) formulating additional related search queries by substituting items from the respective hierarchy tree for selected items in the query, the substituted item having a level in the hierarchy tree that is greater than or less than the level of the query item in the initial query; and
- e) forwarding the initial search query and the additional search queries in parallel to the search engine.

21. On July 30, 1998, Dina Kravets, Liviu Chiriac, Jeffrey Esakov, and Suz Hsi Wan submitted their first provisional application for what would become the '377 Patent. At the time, each of the inventors were employed by SRI's subsidiary at its New Jersey laboratories.

22. In 1998, Internet search engine technology was in its infancy. The leading search engine of the time was AltaVista, a screen capture of which is pictured below:<sup>1</sup>



<sup>1</sup> Image obtained from Search Engine Land, A Eulogy for AltaVista, The Google of Its Time, *available at* <http://searchengineland.com/altavista-eulogy-165366> (last visited Apr. 9, 2014).

23. At that time, AltaVista's search capabilities were considered state of the art. Whereas web "cataloguing" websites, such as Yahoo, manually compiled lists of webpages, AltaVista permitted users to search the full text of millions of automatically indexed webpages through a single portal. Other search engines such as Excite, HotBot, or Lycos provided similar functionality, but not on the scale provided by AltaVista. By 1998, AltaVista received 13 million queries per day, which it processed on 20 machines that collectively had 130 gigabytes of RAM and 500 gigabytes of hard disk space.

24. The inventors of the '377 Patent recognized, however, that all of these search engines had inherent limitations. Users were limited not only by the incompleteness of the search engines' indexes, but also by the accuracy of the user's search queries. A user with a specific target in mind, for example, was faced with the needle-in-a-haystack search exercise of manually reformulating search queries indefinitely until finding a responsive item among the thousands of "hits" returned by the search engine. Worse still, the search engines' inability to effectively discern the user's need could have led the user to mistakenly conclude that responsive materials did not exist, when in fact they did. The user, in other words, would not know what he or she was missing.

25. The inventors of the '377 Patent sought to overcome these search limitations. The '377 Patent generally teaches methods and systems for improving the interaction between the user and the search engine. By general example only, the '377 Patent discloses methods and systems for automatically converting search queries into "Boolean" language (which allows logical limitations and expansions of searching), selectively modifying the user's query terms to be weaker or stronger, and intelligently forming additional related search queries. The

reformulated search queries are then submitted to the search engine in parallel with the user's initial search query, yielding additional—and more accurate—results.

26. The '377 Patent was a breakthrough innovation. An illustration of the fundamental nature of the methods and systems taught and claimed in the '377 Patent is the fact that it has been cited during the prosecution of at least 267 later-filed patents. The '377 Patent has more forward citations than 92.9% of all comparable United States patents and has been cited in patent applications filed by a variety of industry leaders including Google, IBM, Intel, Oracle, Yahoo!, Facebook, and Microsoft.

#### HP'S INFRINGEMENT OF THE ASSERTED PATENT

27. HP is a publicly-traded, multinational information technology company that provides hardware, software, and services to consumers and businesses. Its product offerings include personal computing devices, enterprise and industry standard servers, related storage devices, networking products, software, and imaging products. HP is currently the world's leading personal computer manufacturer. In early 2014, HP's market capitalization stood at slightly more than \$55 billion.

28. As part of its software offerings, HP markets or has marketed products operating on the Autonomy Intelligent Data Operating Layer (IDOL) platform, including the HP Universal Search for IT and HP Autonomy Express Desktop Search products. The HP Universal Search for IT and HP Autonomy Express Desktop Search provide “conceptual and contextual search” rather than “simple keyword queries.”<sup>2</sup> Among other features, each of these products offers the

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<sup>2</sup>See “HP Universal Search,” available at <http://www.autonomy.com/products/universal-search> (last visited Apr. 9, 2014); “Express Desktop Search,” available at <http://www.autonomy.com/content/Products/express-search/index.en.html> (last visited Sep. 18, 2013).

same query reformulation and improvement features claimed by the '377 Patent, thus infringing the '377 Patent.

29. As part of its software offerings, HP also markets or has marketed products, solutions, and/or services including HP Universal Search for Legal, HP eDiscovery, and HP Explore, HP WorkSite, HP WorkSite Mobility, HP WorkSite Records Manager, HP Data Protector, HP Autonomy Document Generation, HP Autonomy Enterprise Search, HP Consolidated Archive 8.0, HP Healthcare Analytics, HP Rich Media Management, HP Digital Safe, HP Records Manager, HP ControlPoint, HP Surveillance, HP Broadcast Monitoring, and HP Supervisor; all of which are also built upon the HP Autonomy IDOL platform. On information and belief, these products, solutions, and/or services, among other features, offer the same query reformulation and improvement features claimed by the '377 Patent, thus infringing the '377 Patent.

30. HP provides its customers and users of the HP Universal Search for IT, HP Autonomy Express Desktop Search, HP Universal Search for Legal, HP eDiscovery, HP Explore, HP WorkSite, HP WorkSite Mobility, HP WorkSite Records Manager, HP Data Protector, HP Autonomy Document Generation, HP Autonomy Enterprise Search, HP Consolidated Archive 8.0, HP Healthcare Analytics, HP Rich Media Management, HP Digital Safe, HP Records Manager, HP ControlPoint, HP Surveillance, HP Broadcast Monitoring, and HP Supervisor with instructions for how to practice the methods of the '377 Patent. By way of example only, as a result of HP's instructions, customers use these products, solutions, and/or services so that they receive an initial search query, convert it to general Boolean language, identify a level in a respective hierarchy tree for each search query item, formulating additional

related search queries by substituting items from the respective hierarchy tree, and forwarding the initial query and the additional queries in parallel to the search engine.

31. These instructions are made and have been made available by HP to its customers on HP's own websites.<sup>3</sup> On information and belief, in making these instructions available, HP specifically intended to encourage its customers to follow these instructions in a manner that infringes the '377 Patent.

## COUNT I

### INFRINGEMENT OF U.S. PATENT NO. 6,363,377

32. Selene refers to and incorporates herein the allegations of paragraphs 1 through 31.

33. HP is liable for direct infringement of the '377 Patent pursuant to 35 U.S.C. § 271(a).

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<sup>3</sup> See "HP Universal Search," available at <http://www.autonomy.com/products/universal-search> (last visited Apr. 9, 2014); "Express Desktop Search," available at <http://www.autonomy.com/content/Products/express-search/index.en.html> (last visited Sep. 18, 2013); "HP Universal Search for Legal," available at <http://www.autonomy.com/products/universal-search-legal> (last visited Apr. 9, 2014); "HP eDiscovery," available at <http://www.autonomy.com/products/ediscovery> (last visited Apr. 9, 2014); "HP Explore," available at <http://www.autonomy.com/products/explore> (last visited Apr. 9, 2014); "HP Worksite," available at <http://www.autonomy.com/products/worksite> (last visited Apr. 17, 2014); "WorkSite mobility for Apple iPad and iPhone," available at [http://www.autonomy.com/pdoc/assets/global/pdf/Products/Participate/WorkSite/20130122\\_RL\\_PB\\_HP\\_WorkSite\\_iOS\\_web.pdf](http://www.autonomy.com/pdoc/assets/global/pdf/Products/Participate/WorkSite/20130122_RL_PB_HP_WorkSite_iOS_web.pdf) (last visited Apr. 17, 2014); "HP WorkSite Records Manager," available at <http://www.autonomy.com/products/worksite-records-manager> (last visited Apr. 17, 2014); "HP Data Protector software," available at <http://h20195.www2.hp.com/V2/GetPDF.aspx%2F4AA2-3654ENW.pdf> (last visited Apr. 17, 2014); "Autonomy Document Generation," available at [http://www.autonomy.com/assets/global/pdf/Products/Participate/Scrittura/20130328\\_CI\\_BR\\_HP\\_AUT\\_DocGenerator\\_web.pdf](http://www.autonomy.com/assets/global/pdf/Products/Participate/Scrittura/20130328_CI_BR_HP_AUT_DocGenerator_web.pdf) (last visited Apr. 17, 2014); "Enterprise Search," available at <http://www.autonomy.com/offerings/unified-information-access/enterprise-search> (Apr. 17, 2014); "HP Consolidated Archive," available at <http://www.autonomy.com/products/consolidated-archive> (Apr. 17, 2014); "HP Healthcare Analytics," available at <http://www.autonomy.com/products/healthcare> (Apr. 17, 2014); "HP Rich Media Management," available at [http://www.autonomy.com/assets/global/pdf/Offerings/marketing-optimization/20131212\\_CI\\_BR\\_HP\\_Manage\\_Rich\\_Media\\_web.pdf](http://www.autonomy.com/assets/global/pdf/Offerings/marketing-optimization/20131212_CI_BR_HP_Manage_Rich_Media_web.pdf) (last visited Apr. 17, 2014); "HP Digital Safe," available at <http://www.autonomy.com/products/digital-safe> (last visited Apr. 17, 2014); "HP Records Manager," available at <http://www.autonomy.com/products/hp-records-manager> (last visited Apr. 17, 2014); "HP ControlPoint," available at <http://www.autonomy.com/products/control-point> (last visited Apr. 17, 2014); "HP Surveillance," available at <http://www.autonomy.com/products/surveillance> (last visited Apr. 17, 2014); "HP Broadcast Monitoring," available at <http://www.autonomy.com/products/broadcast-monitoring> (last visited Apr. 17, 2014); "HP Supervisor," available at <http://www.autonomy.com/products/supervisor> (last visited Apr. 17, 2014).

34. HP has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least Claim 1 of the '377 Patent by making, using, selling, and/or offering to sell in the United States, or importing into the United States, certain methods and/or systems disclosed and claimed in the '377 Patent, specifically including, but not limited to, its HP Universal Search for IT, HP Autonomy Express Desktop Search, HP Universal Search for Legal, HP eDiscovery, HP Explore, HP WorkSite, HP WorkSite Mobility, HP WorkSite Records Manager, HP Data Protector, HP Autonomy Document Generation, HP Autonomy Enterprise Search, HP Consolidated Archive 8.0, HP Healthcare Analytics, HP Rich Media Management, HP Digital Safe, HP Records Manager, HP ControlPoint, HP Surveillance, HP Broadcast Monitoring, and HP Supervisor products, solutions, and/or services.

35. HP has induced its customers to infringe the '377 Patent literally and/or under the doctrine of equivalents. HP has had knowledge of the '377 Patent and evidence of its infringement of the '377 Patent since at least the date HP was served with Selene's Original Complaint. HP has induced its customers and users of its HP Universal Search for IT, HP Autonomy Express Desktop Search, HP Universal Search for Legal, HP eDiscovery, HP Explore, HP WorkSite, HP WorkSite Mobility, HP WorkSite Records Manager, HP Data Protector, HP Autonomy Document Generation, HP Autonomy Enterprise Search, HP Consolidated Archive 8.0, HP Healthcare Analytics, HP Rich Media Management, HP Digital Safe, HP Records Manager, HP ControlPoint, HP Surveillance, HP Broadcast Monitoring, and HP Supervisor products, solutions, and/or services to infringe the '377 Patent by providing instructions to practice the methods of the '377 Patent.

36. On information and belief, HP acted with the specific intent to induce its customers to use the methods claimed by the '377 Patent by continuing the above-mentioned activities with knowledge of the '377 Patent.

37. Selene has suffered and continues to suffer damages as a result of HP's infringement of Selene's '377 Patent. Pursuant to 35 U.S.C. § 284, Selene is entitled to recover damages from HP for its infringing acts in an amount subject to proof at trial, but no less than a reasonable royalty from HP for its infringing acts.

38. HP's infringement of Selene's '377 Patent has damaged and will continue to damage Selene, causing irreparable harm for which there is no adequate remedy at law, unless HP is enjoined by this Court.

#### **PRAYER FOR RELIEF**

Selene, respectfully requests the Court to enter judgment in its favor and against HP, granting the following relief:

- A. Judgment in Plaintiff's favor that HP has infringed and continues to infringe, literally and/or under the doctrine of equivalents, directly and/or indirectly, the '377 Patent;
- B. A permanent injunction enjoining HP and its officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in active concert therewith from infringement of the '377 Patent, or such other equitable relief the Court determines is warranted;
- C. An award to Plaintiff of damages adequate to compensate it for HP's acts of patent infringement, but in no event less than a reasonable royalty,

together with interest, costs, and expenses as fixed by the court pursuant to  
35 U.S.C. § 284;

- D. A judgment and order requiring HP to provide an accounting and to pay supplemental damages to Selene, including without limitation, pre-judgment and post-judgment interest
- E. Any further relief to which Selene may be entitled.

### **JURY DEMAND**

Selene, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any issues so triable by right.

Date: September 2, 2014

BAYARD, P.A.

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