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

SELENE COMMUNICATION TECHNOLOGIES, LLC,	
Plaintiff,	
v.	C.A. No. 14-341-SLR
EMC CORPORATION,	**JURY TRIAL DEMANDED**
Defendant.	

FIRST AMENDED COMPLAINT

This is an action for patent infringement in which Plaintiff, Selene Communication

Technologies, LLC ("Selene"), makes the following allegations against Defendants EMC

Corporation ("EMC"):

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 EMC Corporation is a corporation

organized under the laws of the Commonwealth of Massachusetts, with its corporate

headquarters and principal place of business at 176 South Street, Hopkinton, Massachusetts

01748. EMC Corporation may be served via its registered agent for service of process, C T

Corporation System, 155 Federal Street Suite 700, Boston, MA 02110.

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 EMC. EMC has conducted extensive commercial activities and continues to conduct extensive commercial activities within the State of Delaware. EMC, directly and/or through intermediaries or affiliates (including EMC 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. EMC, directly and/or through intermediaries or affiliates (including other EMC 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 and services 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, EMC 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, EMC 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, EMC 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").

7.   Based on a purchase agreement and assignment from SRI, Plaintiff Selene owns

the Asserted Patent, and has the exclusive right to sue for infringement and recover damages for

all past, present, and future infringement.

THE HISTORY OF SRI

8.   All of the inventions disclosed and claimed in the Asserted Patent were originally

invented and patented by technology researchers at SRI, a premier institution with a long history

of leading technological innovation.

9.   SRI, which began as an initiative among researchers at Stanford University, was

founded in 1946 as the Stanford Research Institute.

10.   Since its inception, SRI was a pioneer in

advancing technology in ways that had a profound global

impact. For instance, in 1963, engineers at SRI created the

first optical video disk recording system, paving the way for

modern optical storage technologies such as CD-ROMs,

DVDs, and Blu-Ray discs. In the early 1960s, SRI engineers
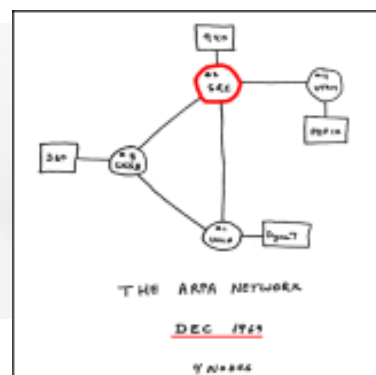
invented the world's first computer mouse (pictured above right). In the late 1960s, SRI

collaborated with the U.S. Department of Defense to create "ARPANET"—the progenitor of

what would become the global Internet (scan of ARPANET map, circa 1969, pictured right).

11.   SRI was spun out from Stanford University in 1970. In the early 1970s, SRI was

the first organization to utilize domain names, with extensions such as ".com," ".org," or ".gov."

In 1977, SRI created what is considered to be the first true Internet connection, by connecting

three dissimilar networks.

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 for 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.   The Asserted Patent issued as the 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 EMC.

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:[1]

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[1] 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 Feb. 20, 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 more than 265 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.

<div align="center">EMC'S INFRINGEMENT OF THE ASSERTED PATENT</div>

27.   EMC is a publicly-traded, multinational information technology company that

specializes in creating information infrastructures and virtual infrastructures.[2] EMC's offerings

include backup and recovery, enterprise content management, unified storage, big data,

enterprise storage, data federation, archiving, security, and deduplication. EMC expanded its

security division in 2006 with its acquisition of RSA Security Inc., which became EMC's

Information Security Division.[3]

28.   As part of its software offerings, EMC markets and has marketed the EMC

Documentum xPlore Search, which it describes as a "powerful and flexible search engine."[4]

Among other features, the EMC Documentum xPlore Search offers the same query

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

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[2] *See* http://www.emc.com/ (last visited Feb. 24, 2014).
[3] *See* "EMC Buys RSA Security for $2.1B," *Forbes* (Jun. 30, 2006), *available at*
http://www.forbes.com/2006/06/30/emc-rsa-0630markets02.html (last visited Feb. 24, 2014).
[4] *See* "EMC Documentum Platform," *available at* http://www.emc.com/collateral/data-sheet/h2810-documentum-platform-ds.pdf (last visited Feb. 24, 2014).

Patent. For example, EMC Documentum xPlore Search employs Lucene search technology and query optimization,[5] which perform the query reformulation claimed by the '377 Patent.

29.   As part of its software offerings, EMC also markets and has marketed the EMC Documentum ApplicationXtender. On information belief, the EMC Documentum ApplicationXtender, among other features, offers the same query reformulation and improvement features claimed by the '377 Patent, thus infringing the '377 Patent.

30.   EMC provides its customers and users of the EMC Documentum xPlore Search and EMC Documentum ApplicationXtender with instructions for how to practice the methods of the '377 Patent. By way of example only, as a result of EMC's instructions, customers and users of EMC Documentum xPlore Search and EMC Documentum ApplicationXtender 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 available by EMC to its customers on EMC's own websites.[6] On information and belief, in making these instructions available, EMC specifically intended to encourage its customers to follow these instructions in a manner that infringes the '377 Patent.

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[5] *See* "Documentum xPlore: Example Diagnosis and Resolution of a Query I/O Capacity Issue," *available at* https://community.emc.com/servlet/JiveServlet/previewBody/9179-102-2-34616/Documentum_xPlore_Query_IO.pdf (last visited Feb. 24, 2014).
[6] *See* "Documentum xPlore," *available at* https://community.emc.com/docs/DOC-8945 (last visited Feb. 24, 2014); "ApplicationXtender: Resources," *available at* http://www.emc.com/enterprise-content-management/applicationxtender/index.htm#!resources (last visited Mar. 14, 2014).

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

34.   EMC 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 EMC Documentum xPlore Search and EMC Documentum ApplicationXtender products.

35.   EMC has induced its customers to infringe the '377 Patent literally and/or under the doctrine of equivalents. EMC has had knowledge of the '377 Patent and evidence of its infringement of the '377 Patent since at least the date EMC was served with Selene's Original Complaint. EMC has induced its customers and users of its EMC Documentum xPlore Search and EMC Documentum ApplicationXtender products to infringe the '377 Patent by providing instructions to practice the methods of the '377 Patent.

36.   On information and belief, EMC 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 EMC's infringement of Selene's '377 Patent. Pursuant to 35 U.S.C. § 284, Selene is entitled to recover damages from EMC for its infringing acts in an amount subject to proof at trial, but no less than a reasonable royalty from EMC for its infringing acts.

38.   EMC'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 EMC is enjoined by this Court.

PRAYER FOR RELIEF

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

A.   Judgment in Plaintiff's favor that EMC 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 EMC 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 EMC'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 EMC to provide an accounting and to pay supplemental damages to Selene, including without limitation, pre-judgment and post-judgment interest; and

E.   Any further relief to which Selene may be entitled.

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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

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