

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

EMC CORPORATION, EMC)	
INTERNATIONAL COMPANY, and)	
EMC INFORMATION SYSTEMS)	
INTERNATIONAL,)	
)	
Plaintiffs,)	C.A. No. 13-1985 (RGA)
)	
v.)	DEMAND FOR JURY TRIAL
)	
PURE STORAGE, INC.,)	
)	
Defendant.)	

AMENDED COMPLAINT FOR INJUNCTIVE RELIEF AND DAMAGES

Plaintiffs EMC Corporation (“EMC”), EMC International Company (“EIC”), and EMC Information Systems International (“EISI”) (collectively, “Plaintiffs”) allege as follows against Defendant Pure Storage, Inc. (“Pure Storage” or “Defendant”).

NATURE OF ACTION

1. This is an action arising from Pure Storage’s infringement of EMC’s patents. EMC is the global leader in the development, manufacture, and sale of enterprise data storage systems. It has invested billions of dollars to develop and incorporate cutting-edge technology in its products, and through this substantial investment it has pioneered the development of many innovations in the information technology field, including the patented innovations that are the subject of this action. Pure Storage’s FlashArray product, just introduced in 2011, incorporates many of EMC’s patented advances. By this action, EMC seeks to put an end to Pure Storage’s patent infringement and to recover damages and attorneys’ fees for the harm Pure Storage has caused.

PARTIES

2. Plaintiff EMC is a Massachusetts corporation with its principal executive offices in Hopkinton, Massachusetts. It is a recognized leader in the information technology industry, offering innovative products and services that enable its customers to store, manage, protect, and analyze vast amounts of digital data in a trusted and cost-efficient way. EMC's extensive product offerings – ranging from enterprise storage arrays to content management systems to storage area networks, backup, recovery and archiving solutions, and information security – are used by customers around the world to store, process, and access valuable information. Among the products EMC offers to the industry is a data storage system based on flash memory. EMC owns all right, title, and interest in the patents in suit, including the right to bring this suit for injunctive relief and damages.

3. Plaintiff EIC is a corporation formed under the laws of Ireland with its principal place of business in Bermuda. EIC is a wholly owned subsidiary of EMC. Pursuant to a 2009 transaction, EIC obtained an exclusive license under certain patents, including two of the patents-in-suit in this action, U.S. Patent Nos. 7,373,464 and 7,434,015, within a specified field of use, with the right to grant sublicenses.

4. Plaintiff EISI is a corporation formed under the laws of Ireland with its principal place of business in Ireland. EISI is a wholly owned subsidiary of EMC. Pursuant to the 2009 transaction, EISI obtained an exclusive sublicense from EIC under certain patents, including U.S. Patent Nos. 7,373,464 and 7,434,015, within the above-referenced field of use.

5. On information and belief, Defendant Pure Storage is a Delaware corporation with headquarters in Mountain View, California. Pure Storage manufactures and sells a data

storage system based on flash memory that it offers for sale, in competition with EMC, under the name “FlashArray.”

JURISDICTION AND VENUE

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

7. The Court has personal jurisdiction over Pure Storage because Pure Storage is incorporated in Delaware and has conducted and continues to conduct business within this judicial district.

8. Venue is proper in this judicial district under 28 U.S.C. §§ 1391(b) and (c) and 1400(b).

FACTUAL BACKGROUND

9. EMC has been the worldwide leader in the development and sale of large-scale data storage systems since the mid-1990s. That position of leadership is the result of pioneering innovation, hard work, and substantial investment by EMC in new technologies. Since 2003, EMC has invested more than \$30 billion in research, development, and acquisition of technologies that have revolutionized the world of data storage. EMC has received numerous awards and recognitions as a result of its many product innovations. For example, in 2012, Thomson Reuters recognized EMC in its 2012 Top 100 Global Innovators report as one of the top 100 world leaders in innovation. In 2013, EMC was ranked No. 2 on FORTUNE Magazine’s Most Admired Company List in the computer industry.

10. Many years ago, EMC recognized the vital role of solid-stage storage technologies, such as flash storage, in the evolution of its data storage business. Solid state

storage devices have no moving parts, can be faster than traditional magnetic storage, and often consume less power than traditional storage. By 2005, EMC had begun investing in the development of flash technology in the context of the large-scale storage arrays on which EMC had built its core business. In 2008, EMC became the first enterprise storage vendor to integrate flash-based solid state drives into its core product portfolio. By 2011, EMC had sold and delivered several all-flash storage arrays to its customers, and continued to expand its flash product offerings in the ensuing years.

11. In order to protect EMC's substantial investment and world leader position in enterprise data storage systems, EMC and its subsidiaries have applied for and have been awarded several thousand patents from the United States Patent Office and the patent offices of foreign jurisdictions for their many innovations. Many of EMC's patents relate to its data storage innovations, both generally as well as specifically in the area of solid-state storage. Five of those patents are at issue in this lawsuit.

12. On June 7, 2005, the U.S. Patent and Trademark Office issued U.S. Patent No. 6,904,556, entitled "System and Methods which Utilize Parity Sets" (the "'556 patent"). EMC's John K. Walton, Michael Bermingham, and Christopher S. MacLellan, the inventors of the '556 patent, developed a novel approach to storing data on memory boards (such as those used in flash memory). The '556 patent protects aspects of this innovation.

13. On July 5, 2005, the U.S. Patent and Trademark Office issued U.S. Patent No. 6,915,475, entitled "Data Integrity Management for Data Storage Systems" (the "'475 patent"). Victor W. Tung and Stephen Lawrence Scaringella of EMC, the inventors of the '475 patent, developed a novel method and system for using multiple levels of error detecting codes in connection with the storage of data.

14. On May 13, 2008, the U.S. Patent and Trademark Office issued U.S. Patent No. 7,373,464, entitled “Efficient Data Storage System” (the “’464 patent”). Ming Benjamin Zhu, Kai Li, and R. Hugo Patterson, who performed work for an EMC acquisition called Data Domain, Inc., invented the subject matter of the ’464 patent, which relates to a novel method, device, and computer program product for de-duplicating data.

15. On October 7, 2008, the U.S. Patent and Trademark Office issued U.S. Patent No. 7,434,015, entitled “Efficient Data Storage System” (the “’015 patent”), also invented by Messrs. Zhu, Li and Patterson. The ’015 patent, like the ’464 patent, relates to a novel method, device, and computer program product for de-duplicating data.

16. On February 12, 2013, the U.S. Patent and Trademark Office issued U.S. Patent No. 8,375,187, entitled “I/O Scheduling for Flash Drives” (the “’187 patent”). Kendell Chilton and Sachin More of EMC, the inventors of the ’187 patent, developed a novel approach to scheduling read and write operations for solid-state storage devices (such as one using flash memory) to take advantage of their discovery that such a device is most efficient when it is devoted only to reading or writing data at any given time, but not both.

17. Pure Storage is a new entrant in the data storage industry, having released its first version of its FlashArray product in just 2011. It released additional generations of the FlashArray in 2012 and 2014. As explained in more detail below, on information and belief, the Pure Storage FlashArray infringes one or more claims of EMC’s ’556, ’475, ’464, ’015, and ’187 patents.

COUNT ONE
Infringement of U.S. Patent No. 6,904,556

18. Plaintiffs hereby reallege and incorporate herein the allegations set forth in paragraphs 1-17 of this Complaint.

19. EMC owns all right, title, and interest in the '556 patent, including the right to bring this suit for injunctive relief and damages. A copy of the '556 patent is attached hereto as Exhibit A.

20. EMC is informed and believes, and on that basis alleges, that Pure Storage has been and is infringing the '556 patent under at least 35 U.S.C § 271(a) by making, using, selling, and/or offering for sale products, including the FlashArray, that incorporate inventions claimed in the '556 patent.

21. EMC is informed and believes, and on that basis alleges, that Pure Storage's infringement is literal or, in the alternative, infringement under the doctrine of equivalents.

22. EMC is informed and believes, and on that basis alleges, that Pure Storage instructs its customers on the use of its FlashArray products, and that Pure Storage has continued such instruction following Pure Storage's receipt of the original Complaint with knowledge of the '556 patent and with the intent to cause infringement, thereby inducing infringement of the '556 patent. Such instruction is provided, for example, in user guides, installation and support guides, and other documentation; in marketing videos; on Pure Storage's CloudAssist Support website (available at <http://www.purestorage.com/support/>); and through Pure Storage's other support services. For example, Pure Storage's website states that "[t]he winning recipe for all-flash storage...[includes] dual-parity or greater RAID protection." ([http://www.purestorage.com/blog/emc-xtremios-ga-is-an-inflection-point-for-enterprise-storage/\[1/8/2014 4:46:08 PM\]](http://www.purestorage.com/blog/emc-xtremios-ga-is-an-inflection-point-for-enterprise-storage/[1/8/2014 4:46:08 PM])). Pure Storage has thereby caused its customers to use the FlashArray products in a manner that infringes the '556 patent.

23. EMC is informed and believes, and on that basis alleges, that since at least the filing of the original Complaint in this action, Pure Storage has contributed and is continuing to

contribute to the infringement of the '556 patent by selling or offering to sell its FlashArray products to its customers with knowledge that those products are especially made or especially adapted for use in the infringement of the '556 patent. Those products, which are not staple articles of commerce suitable for substantial noninfringing uses, constitute at a minimum apparatuses for use in practicing a patented process of the '556 patent.

24. Pure Storage's infringement has left EMC with no adequate remedy at law and has caused, is causing, and if not enjoined will continue to cause irreparable damage to EMC.

25. Pure Storage, by way of its infringing activity, has caused and continues to cause EMC to suffer damages in an amount to be determined at trial.

COUNT TWO
Infringement of U.S. Patent No. 6,915,475

26. Plaintiffs hereby reallege and incorporate herein the allegations set forth in paragraphs 1-17 of this Complaint.

27. EMC owns all right, title, and interest in the '475 patent, including the right to bring this suit for injunctive relief and damages. A copy of the '475 patent is attached hereto as Exhibit B.

28. EMC is informed and believes, and on that basis alleges, that Pure Storage has been and is infringing the '475 patent under at least 35 U.S.C § 271(a) by making, using, selling, and/or offering for sale products, including the FlashArray, that incorporate inventions claimed in the '475 patent.

29. EMC is informed and believes, and on that basis alleges, that Pure Storage's infringement is literal or, in the alternative, infringement under the doctrine of equivalents.

30. EMC is informed and believes, and on that basis alleges, that Pure Storage instructs its customers on the use of its FlashArray products, and that Pure Storage has continued

such instruction following Pure Storage's receipt of the original Complaint with knowledge of the '475 patent and with the intent to cause infringement, thereby inducing infringement of the '475 patent. Such instruction is provided, for example, in user guides, installation and support guides, and other documentation; in marketing videos; on Pure Storage's CloudAssist Support website (available at <http://www.purestorage.com/support/>); and through Pure Storage's other support services. For example, a video on Pure Storage's website states that the FlashArray's "end-to-end data integrity fabric" is one of three "key dimensions" of Pure Storage's approach to resiliency, and includes "when IO comes into our system, the very first thing we do is we checksum it, and then throughout every layer of our processing we look at that checksum and we verify its integrity." (*The Pure Storage FlashArray 30-Minute Technical Introduction* video). Pure Storage has thereby caused its customers to use the FlashArray products in a manner that infringes the '475 patent.

31. EMC is informed and believes, and on that basis alleges, that since at least the filing of the original Complaint in this action, Pure Storage has contributed and is continuing to contribute to the infringement of the '475 patent by selling or offering to sell its FlashArray products to its customers with knowledge that those products are especially made or especially adapted for use in the infringement of the '475 patent. Those products, which are not staple articles of commerce suitable for substantial noninfringing uses, constitute at a minimum apparatuses for use in practicing a patented process of the '475 patent.

32. Pure Storage's infringement has left EMC with no adequate remedy at law and has caused, is causing, and if not enjoined will continue to cause irreparable damage to EMC.

33. Pure Storage, by way of its infringing activity, has caused and continues to cause EMC to suffer damages in an amount to be determined at trial.

COUNT THREE
Infringement of U.S. Patent No. 7,373,464

34. Plaintiffs hereby reallege and incorporate herein the allegations set forth in paragraphs 1-17 of this Complaint.

35. EMC owns all right, title, and interest in the '464 patent, including the right to bring this suit for injunctive relief and damages. EIC is an exclusive licensee, and EISI an exclusive sublicensee, under the '464 patent within a specified field of use. A copy of the '464 patent is attached hereto as Exhibit C.

36. Plaintiffs are informed and believe, and on that basis allege, that Pure Storage has been and is infringing the '464 patent under at least 35 U.S.C § 271(a) by making, using, selling, and/or offering for sale products, including the FlashArray, that incorporate inventions claimed in the '464 patent.

37. Plaintiffs are informed and believe, and on that basis allege, that Pure Storage's infringement is literal or, in the alternative, infringement under the doctrine of equivalents.

38. Plaintiffs are informed and believe, and on that basis allege, that Pure Storage instructs its customers on the use of its FlashArray products, and that Pure Storage has continued such instruction following Pure Storage's receipt of the original Complaint with knowledge of the '464 patent and with the intent to cause infringement, thereby inducing infringement of the '464 patent. Such instruction is provided, for example, in user guides, installation and support guides, and other documentation; in marketing videos; on Pure Storage's CloudAssist Support website (available at <http://www.purestorage.com/support/>); and through Pure Storage's other support services. For example, Pure Storage's website states that deduplication and other data reduction techniques are "essential for a cost-effective flash array." (<http://www.purestorage.com>).

com/flash-array/dedupe.html). Pure Storage has thereby caused its customers to use the FlashArray products in a manner that infringes the '464 patent.

39. Plaintiffs are informed and believe, and on that basis allege, that since at least the filing of the original Complaint in this action, Pure Storage has contributed and is continuing to contribute to the infringement of the '464 patent by selling or offering to sell its FlashArray products to its customers with knowledge that those products are especially made or especially adapted for use in the infringement of the '464 patent. Those products, which are not staple articles of commerce suitable for substantial noninfringing uses, constitute at a minimum apparatuses for use in practicing a patented process of the '464 patent.

40. Pure Storage's infringement has left Plaintiffs with no adequate remedy at law and has caused, is causing, and if not enjoined will continue to cause irreparable damage to Plaintiffs.

41. Pure Storage, by way of its infringing activity, has caused and continues to cause Plaintiffs to suffer damages in an amount to be determined at trial.

COUNT FOUR
Infringement of U.S. Patent No. 7,434,015

42. Plaintiffs hereby reallege and incorporate herein the allegations set forth in paragraphs 1-17 of this Complaint.

43. EMC owns all right, title, and interest in the '015 patent, including the right to bring this suit for injunctive relief and damages. EIC is an exclusive licensee, and EISI an exclusive sublicensee, under the '015 patent within a specified field of use. A copy of the '015 patent is attached hereto as Exhibit D.

44. Plaintiffs are informed and believe, and on that basis allege, that Pure Storage has been and is infringing the '015 patent under at least 35 U.S.C § 271(a) by making, using, selling,

and/or offering for sale products, including the FlashArray, that incorporate inventions claimed in the '015 patent.

45. Plaintiffs are informed and believe, and on that basis allege, that Pure Storage's infringement is literal or, in the alternative, infringement under the doctrine of equivalents.

46. Plaintiffs are informed and believe, and on that basis allege, that Pure Storage instructs its customers on the use of its FlashArray products, and that Pure Storage has continued such instruction following Pure Storage's receipt of the original Complaint with knowledge of the '015 patent and with the intent to cause infringement, thereby inducing infringement of the '015 patent. Such instruction is provided, for example, in user guides, installation and support guides, and other documentation; in marketing videos; on Pure Storage's CloudAssist Support website (available at <http://www.purestorage.com/support/>); and through Pure Storage's other support services. For example, Pure Storage's website states that deduplication and other data reduction techniques are "essential for a cost-effective flash array." (<http://www.purestorage.com/flash-array/dedupe.html>). Pure Storage has thereby caused its customers to use the FlashArray products in a manner that infringes the '015 patent.

47. Plaintiffs are informed and believe, and on that basis allege, that since at least the filing of the original Complaint in this action, Pure Storage has contributed and is continuing to contribute to the infringement of the '015 patent by selling or offering to sell its FlashArray products to its customers with knowledge that those products are especially made or especially adapted for use in the infringement of the '015 patent. Those products, which are not staple articles of commerce suitable for substantial noninfringing uses, constitute at a minimum apparatuses for use in practicing a patented process of the '015 patent.

48. Pure Storage's infringement has left Plaintiffs with no adequate remedy at law and has caused, is causing, and if not enjoined will continue to cause irreparable damage to Plaintiffs.

49. Pure Storage, by way of its infringing activity, has caused and continues to cause Plaintiffs to suffer damages in an amount to be determined at trial.

COUNT FIVE
Infringement of U.S. Patent No. 8,375,187

50. Plaintiffs hereby reallege and incorporate herein the allegations set forth in paragraphs 1-17 of this Complaint.

51. EMC owns all right, title, and interest in the '187 patent, including the right to bring this suit for injunctive relief and damages. A copy of the '187 patent is attached hereto as Exhibit E.

52. EMC is informed and believes, and on that basis alleges, that Pure Storage has been and is infringing the '187 patent under at least 35 U.S.C § 271(a) by making, using, selling, and/or offering for sale products, including the FlashArray, that incorporate inventions claimed in the '187 patent.

53. EMC is informed and believes, and on that basis alleges, that Pure Storage's infringement is literal or, in the alternative, infringement under the doctrine of equivalents.

54. EMC is informed and believes, and on that basis alleges, that Pure Storage instructs its customers on the use of its FlashArray products, and that Pure Storage has continued such instruction following Pure Storage's receipt of the original Complaint with knowledge of the '187 patent and with the intent to cause infringement, thereby inducing infringement of the '187 patent. Such instruction is provided, for example, in user guides, installation and support guides, and other documentation; in marketing videos; on Pure Storage's CloudAssist Support

website (available at <http://www.purestorage.com/support/>); and through Pure Storage's other support services. For example, a video on Pure Storage's website states that the "entire architecture" of the accused products "was designed in a way that allows for non-blocking reads and writes," a "key thing" that allegedly allows Pure Storage to achieve "the best performance out of MLC SSDs" and to "deliver very, very consistent performance," which it states is one of three "fundamental" goals of the Purity Operating Environment. (*The Pure Storage FlashArray 30-Minute Technical Introduction* video). Pure Storage has thereby caused its customers to use the FlashArray products in a manner that infringes the '187 patent.

55. EMC is informed and believes, and on that basis alleges, that since at least the filing of the original Complaint in this action, Pure Storage has contributed and is continuing to contribute to the infringement of the '187 patent by selling or offering to sell its FlashArray products to its customers with knowledge that those products are especially made or especially adapted for use in the infringement of the '187 patent. Those products, which are not staple articles of commerce suitable for substantial noninfringing uses, constitute at a minimum apparatuses for use in practicing a patented process of the '187 patent.

56. Pure Storage's infringement has left EMC with no adequate remedy at law and has caused, is causing, and if not enjoined will continue to cause irreparable damage to EMC.

57. Pure Storage, by way of its infringing activity, has caused and continues to cause EMC to suffer damages in an amount to be determined at trial.

PRAYER FOR RELIEF

Wherefore, Plaintiffs respectfully request that judgment be entered in their favor and pray that the Court grant the following relief:

A. A judgment in EMC's favor on Counts One, Two, and Five, and in favor of all Plaintiffs on Counts Three and Four;

B. A judgment in favor of EMC that Pure Storage has infringed, literally and/or under the doctrine of equivalents, claims of the '556 patent;

C. A judgment in favor of EMC that Pure Storage has infringed, literally and/or under the doctrine of equivalents, claims of the '475 patent;

D. A judgment in favor of Plaintiffs that Pure Storage has infringed, literally and/or under the doctrine of equivalents, claims of the '464 patent;

E. A judgment in favor of Plaintiffs that Pure Storage has infringed, literally and/or under the doctrine of equivalents, claims of the '015 patent;

F. A judgment in favor of EMC that Pure Storage has infringed, literally and/or under the doctrine of equivalents, claims of the '187 patent;

G. An order preliminarily and permanently enjoining Pure Storage, together with its officers, agents, employees, attorneys, dealers, distributors, sales representatives, and all others acting in concert or privity with it, from making, using, selling, offering for sale, or importing FlashArray or any colorable imitation of FlashArray, and from otherwise infringing the claims of the patents at issue;

H. An order requiring Pure Storage to provide a pre-judgment accounting and to pay supplemental damages to Plaintiffs, including without limitation, pre-judgment and post-judgment interest;

I. An award to Plaintiffs of the damages, including enhanced damages, to which they are entitled under 35 U.S.C. § 284 for Pure Storage's past infringement and any continuing or future infringement up until the date Pure Storage is finally and permanently enjoined from further infringement;

J. An award to Plaintiffs of equitable relief requiring Pure Storage to destroy all infringing products in inventory, including but not limited to its FlashArray products wherever they may be stored or maintained, and to recall from the marketplace all such infringing products, including but not limited to any infringing products in the possession or control of dealers, distributors, or customers.

K. An award to Plaintiffs of their attorneys' fees and costs in this action, including on the basis that this is an exceptional case under 35 U.S.C. § 285;

L. Such other relief that the Court deems just and proper.

JURY DEMAND

Plaintiffs demand a trial by jury on all issues triable to a jury.

MORRIS, NICHOLS, ARSHT & TUNNELL LLP

/s/ Jack B. Blumenfeld

Jack B. Blumenfeld (#1014)
Rodger D. Smith II (#3778)
Jeremy A. Tigan (#5239)
1201 North Market Street
P.O. Box 1347
Wilmington, DE 19899
(302) 658-9200
jblumenfeld@mnat.com
rsmith@mnat.com
jtigan@mnat.com

OF COUNSEL:

Christ R. Ottenweller
Matthew H. Poppe
Jesse Y. Cheng
ORRICK, HERRINGTON & SUTCLIFFE LLP
1000 Marsh Road
Menlo Park, CA 94025
(650) 614-7400

Alyssa M. Caridis
ORRICK, HERRINGTON & SUTCLIFFE LLP
777 South Figueroa Street
Los Angeles, CA 90017
(213) 629-2020

Paul T. Dacier
Krishnendu Gupta
William R. Clark
Thomas A. Brown
EMC CORPORATION
176 South Street
Hopkinton, MA 01748

June 5, 2014
8295544.1

*Attorneys for Plaintiffs EMC Corporation,
EMC International Company, and EMC
Information Systems International*