IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

RED HAT, INC.,)
Plaintiff,	
V.) C.A. No. 18-2027 (LPS) (CJB)
SEQUOIA TECHNOLOGY, LLC and ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE,))))
Defendants.)

FIRST AMENDED COMPLAINT FOR DECLARATORY JUDGMENT

Plaintiff Red Hat, Inc. ("Red Hat"), for its amended complaint against Defendants Sequoia Technology, LLC ("Sequoia") and Electronics and Telecommunications Research Institute ("ETRI"), alleges as follows:

NATURE OF THE ACTION

1. Red Hat brings this action seeking a declaratory judgment (a) that Red Hat's Enterprise Linux Operating Systems versions 4 and later ("RHEL") do not infringe United States Patent 6,718,436 (the "'436 Patent," attached hereto as Exhibit A); (b) that Red Hat has not infringed, induced others to infringe, or contributed to the infringement by others of the '436 Patent; (c) that Red Hat's customers have not infringed and do not infringe under 35 U.S.C. § 271 (or any sub-section thereof) any claim of the '436 Patent based on their purported sale, offer for sale, importation, and/or use of Red Hat's products and/or services, or based on their purported making, using, offering to sell or sale of products that include Red Hat's products; and (d) that the '436 Patent is invalid for failure to comply with one or more of the requirements of the patent laws of the United States, including without limitation 35 U.S.C. §§ 101, 102, 103, and 112.

2. Red Hat also seeks to enjoin Sequoia, ETRI, and their officers, employees or agents from (1) alleging that Red Hat or its customers infringe the '436 Patent; (2) taking any action to suggest that Red Hat or its customers require a license from Sequoia and/or ETRI for use of the '436 Patent; or (3) pursuing or continuing to pursue infringement actions against Red Hat's customers on the basis of those customers' sale, offer for sale, importation, and/or use of Red Hat's products and/or services, or on the basis of their making, using, offering to sell or sale of products that include Red Hat's products.

3. Red Hat seeks this necessary relief because Sequoia, which has alleged rights to sue Red Hat customers through an exclusive license, has instituted four co-pending actions in this Court against third-party customers of Red Hat, alleging that they infringe the '436 Patent. *See* Exhibits Exhibits B - E. In pleading its infringement allegations against these third parties, Sequoia has referenced various components of RHEL, and thereby established at least a reasonable apprehension and potential that Sequoia and/or ETRI could file a lawsuit against Red Hat for infringement of the '436 Patent.

4. As the record owner of the '436 Patent at the time of the customer suits through the present, and on information and belief the employer of the named inventors at the time of their purported invention, ETRI's participation in this lawsuit is necessary to fully and definitively resolve any claims regarding the validity of the '436 Patent and the purported infringement of the '436 Patent.

5. Sequoia's allegations have thus cast uncertainty over Red Hat and its flagship RHEL product, have injured and are injuring Red Hat's business and business relationships, and have created a concrete and immediate justiciable controversy between Red Hat and Sequoia and

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ETRI. Accordingly, Red Hat brings this case to clear its name and that of RHEL, and to protect its customers against claims of infringement that lack merit.

PARTIES

6. Plaintiff Red Hat, Inc. is a Delaware corporation with a principal place of business at 101 East Davie Street, Raleigh, North Carolina, 27601.

7. On information and belief, Sequoia Technology, LLC is a Delaware limited liability company.

8. On information and belief, including based on the allegations regarding ETRI in the customer suits, ETRI is a legal entity operating as a research institution with its principal place of business in the Republic of South Korea at 218 Gajeong-ro, Yuseong-gu, Daejeon, 34129.

JURISDICTION AND VENUE

9. This Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 2201, 1331, and 1338(a) because this action arises under the patent laws, and seeks relief under the Federal Declaratory Judgment Act. 28 U.S.C. § 2201.

10. On information and belief, Sequoia is subject to personal jurisdiction in the District of Delaware because, among other reasons, (1) Sequoia is organized under the laws of the State of Delaware; (2) Sequoia has harmed and continues to harm Red Hat in this District, by, among other things, injuring Red Hat's business and business relationships; and (3) Sequoia has filed four lawsuits in this District asserting the '436 Patent and thus submitted itself to the jurisdiction of the Court.

11. ETRI is subject to personal jurisdiction in the District of Delaware because it was the record owner of the '436 Patent at least at the time of the customer suits and, on information

and belief, Sequoia is an alter ego of ETRI, where ETRI directs Sequoia's activities, including its decision to file lawsuits in this District asserting the '436 Patent, and injuring Red Hat's business and business relationships.

12. Venue is proper in this district pursuant to 28 U.S.C. § 1391 as to Sequoia because Sequoia is a resident of this district.

13. Venue is proper in this district pursuant to 28 U.S.C. § 1391 as to ETRI because, on information and belief, ETRI is not resident in the United States.

BACKGROUND

14. Red Hat is a leading contributor to free and open source software ("FOSS").

15. FOSS is software in which the source code is made available to users for inspection, modification, and distribution. Generally, when a computer program is authored, the programmer writes code in a human-readable programming language. This code is called "source code" and can be compiled into another form, called "object code," that is executable by a computer microprocessor. A software product (*e.g.*, a collection of computer programs) can be distributed solely in object code form, which allows the software product to be fully functional on a computer system but which does not enable users easily to understand or modify the software. By contrast, the source code to FOSS is made available to the recipient under conditions set forth in an accompanying license, which grants relatively broad rights for recipients to use, copy, modify, and distribute the software, but may impose certain obligations regarding distribution of the code or derivative works of the code so as to benefit the broader developer community.

16. In February 2005, as part of its FOSS offerings, Red Hat released Red Hat Enterprise Linux 4. Red Hat Enterprise Linux (or "RHEL") is Red Hat's Linux-based operating system that is especially targeted toward the commercial market. Red Hat has continued to

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release new versions of RHEL since 2005's version 4. The most recent version of RHEL is 8.0, which was released in May 2019.

17. Red Hat makes source code of RHEL and its other FOSS software offerings freely available to anyone, subject to certain conditions. Although it makes software available under open source licenses, Red Hat derives revenues from aggregating, certifying, testing, enhancing, packaging, maintaining, supporting and influencing the future direction of the software, among other value-added offerings.

18. Over the past two decades, Red Hat, a publicly-traded company, has grown from a handful of employees to over 12,000 employees. Throughout this growth, Red Hat has remained committed to the open source development model. Many of Red Hat's thousands of employees have contributed and continue to contribute to the FOSS ecosystem (including RHEL) by developing and releasing code under FOSS licenses. By way of example, Red Hat is one of the largest corporate contributors to the Linux kernel, which is a collection of programs at the heart of RHEL.

19. Since 2014, Forbes has ranked Red Hat as among the most innovative companies in the United States.

20. Sequoia purports to be the exclusive licensee of the '436 Patent, entitled "Method for managing logical volume in order to support dynamic online resizing and software RAID and to minimize metadata and computer readable medium storing the same." The '436 Patent issued on April 6, 2004.

21. On information and belief, the '436 Patent was licensed to Sequoia by ETRI, which is the record owner of the '436 Patent at least as of the time the customer complaints were filed.

22. On information and belief, ETRI has also developed and distributed its own Linux-based operating system titled "Qplus."

23. On information and belief, ETRI is a silver member of the "Linux Foundation," a non-profit technology consortium with the goal of supporting the growth and commercial adoption of Linux.

24. On information and belief, despite purporting to support the growth of Linux, ETRI has licensed the '436 Patent to Sequoia for the purpose of filing lawsuits against four companies for, *inter alia*, allegedly selling computers with Red Hat's Linux-based RHEL operating system and other operating systems that use software provided by Red Hat.

25. Specifically, Sequoia has alleged infringement of the '436 Patent in parallel litigation styled *Sequoia Tech., LLC v. Dell, Inc.*, No.: 18-1127-LPS-CJB (D. Del.), filed on July 31, 2018; *Sequoia Tech., LLC v. Hewlett Packard Enterprise Co.*, No.:18-1128-LPS-CJB (D. Del.), filed on July 31, 2018; *Sequoia Tech., LLC v. Hitachi, Ltd.*, No: 18-1129-LPS-CJB (D. Del.), filed on July 31, 2018; and *Sequoia Tech., LLC v. Super Micro Computer, Inc.*, No: 18-1307-LPS-CJB (D. Del.), filed on August 23, 2018 (collectively, the "Customer Cases," the complaints for which are attached respectively as Exhibits B – E). Each of the customers has moved to dismiss its respective Customer Case on the basis that Sequoia has failed to state a claim for infringement.

26. In *all* of the Customer Cases, Sequoia has alleged *inter alia* that the defendants in those cases infringe at least method claims 1 through 3 of the '436 Patent by manufacturing, providing, using, selling, offering for sale, importing, and/or distributing certain accused products, which include products (*e.g.*, computers) with RHEL versions 4 and later, as well as

with other operating systems that use software provided by Red Hat. The complaints in three of the four Customer Cases contain nearly identical allegations.

27. In its counterclaim for infringement filed in this action, Sequoia has alleged *inter alia* that Red Hat also infringes at least method claims 1 through 3 of the '436 Patent by manufacturing, providing, using, selling, offering for sale, importing, and/or distributing products and services, with RHEL versions 4 and later. The allegations in Sequoia's counterclaim are nearly identical to the allegations in three of the four Customer Cases.

28. Sequoia's allegations in the Customer Cases and its counterclaims are directed to software provided by Red Hat known as the Logical Volume Manager ("LVM"). LVM is one of the thousands of software tools contained within Red Hat's RHEL operating system.

29. LVM was originally developed in 1998 by a current Red Hat employee. Since 1998, Red Hat has been responsible for the development and maintenance of the source code for LVM, which it provides to the public through a free and open source license.

30. Although Red Hat accepts contributions to LVM from the free and open source software community, nearly all of the source code for LVM was written by current or former Red Hat employees.

31. Although Sequoia names other Linux-based operating systems in addition to RHEL in its allegations in the Customer Cases (CentOS, Ubuntu, Oracle Linux, SUSE Enterprise Linux), the relevant accused LVM functionality in all of these operating systems uses the same Red Hat-provided LVM source code that is used in RHEL.

32. Sequoia has pled allegations purporting to show how the LVM software in RHEL infringes the '436 Patent. In the majority of the Customer Cases and in its counterclaims in this action, Sequoia's complaints have included a purported "description of infringement of

exemplary claim 1 of the '436 Patent," which allegedly supports Sequoia's infringement theories under the '436 Patent, and cite *exclusively to Red Hat publications*. For example, Sequoia's complaints in these cases reference certain aspects of RHEL, and include multiple excerpts purportedly from a Red Hat publication entitled "Red Hat Enterprise Linux 5 Logical Volume Manager Administration LVM Administrator's Guide" ("Red Hat's Administrator Guide") and other Red Hat materials. In these complaints, Sequoia provides no other purported evidence of infringement other than the excerpts from Red Hat's Administrator Guide and other Red Hat materials.

33. In Sequoia's aforementioned "description of infringement of exemplary claim 1 of the '436 Patent," Sequoia attempts to match each element of claim 1 of the '436 Patent with verbatim excerpt(s) of Red Hat's Administrator Guide. For example, Sequoia alleges "To the extent the preamble is limiting, the Accused Products, Systems and/or Services include a method for managing a logical volume in order to support dynamic online resizing and minimizing a size of metadata. *See, e.g., Red Hat Enterprise Linux 5 Logical Volume Manager Administration LVM Administrator's Guide Edition 1, at p. 12, reproduced below.*" *See Sequoia Tech., LLC v. Dell, Inc.*, No.: 18-1127-LPS-CJB, D.I. 1 ¶ 17 (July 31, 2018) (emphasis added); *Sequoia Tech., LLC v. Hitachi, Ltd.*, No: 18-1129-LPS-CJB, D.I. 1 ¶ 16 (July 31, 2018) (emphasis added); *Sequoia Tech., LLC v. Super Micro Computer, Inc.*, No: 18-1307-LPS-CJB, D.I. 1 ¶ 15 (August 23, 2018) (emphasis added). Sequoia cites to Red Hat's Administrator Guide and other Red Hat materials for each of the remaining elements of claim 1 in these complaints.

34. Red Hat has a reasonable apprehension, and there exists a reasonable potential, that Sequoia and/or ETRI could file an action against Red Hat and allege that Red Hat has directly infringed the '436 Patent by making, using supplying, distributing, importing, exporting,

selling, and/or offering for sale RHEL and/or LVM products and/or services. Sequoia has in fact made such allegations of direct infringement against Red Hat in its counterclaim in this action, demonstrating that Red Hat's apprehension is reasonable, and not speculative.

35. Red Hat has a reasonable apprehension, and there exists a reasonable potential, that Sequoia and/or ETRI could file an action against Red Hat and allege that Red Hat has actively induced end-users to infringe the '436 Patent by, among other things, making available to end-users RHEL, LVM, and/or the "Red Hat Enterprise Linux 5 Logical Volume Manager Administration LVM Administrator's Guide." Sequoia has in fact made such allegations of induced infringement against Red Hat in its counterclaim in this action, demonstrating that Red Hat's apprehension is reasonable, and not speculative.

36. Red Hat has a reasonable apprehension, and there exists a reasonable potential, that Sequoia and/or ETRI could file an action against Red Hat and allege that Red Hat contributed to the infringement of the '436 Patent by, among other things, making available to end-users RHEL, LVM, and/or the "Red Hat Enterprise Linux 5 Logical Volume Manager Administration LVM Administrator's Guide." Sequoia has in fact made such allegations of contributory infringement against Red Hat in its counterclaim in this action, demonstrating that Red Hat's apprehension is reasonable, and not speculative.

37. Red Hat believes that neither Red Hat nor its products and/or services have infringed the '436 Patent, and that Red Hat has not induced others to infringe or contributed to the infringement by others of the '436 Patent.

38. Sequoia's claims and allegations have cast uncertainty over Red Hat and its products and services, have injured and are injuring Red Hat's business and business relationships, and have created a concrete and immediate justiciable controversy between Red

Hat and Sequoia and ETRI. Red Hat brings this case to clear its name and that of RHEL and LVM, and to protect its customers against claims of infringement that lack merit.

FIRST CLAIM FOR RELIEF (Declaratory Judgment of Noninfringement of the '436 Patent)

39. Red Hat realleges and incorporates paragraphs 1 to 38 as if fully set forth herein.

40. Neither Red Hat nor its products and/or services have infringed, induced others to infringe or contributed to the infringement by others of the '436 Patent.

41. By way of example, neither Red Hat nor its products and/or services have infringed, induced others to infringe, or contributed to the infringement by others of any claim of the '436 Patent because RHEL and LVM do not "creat[e] [a] logical volume by gathering disk partitions." To the extent RHEL or LVM is capable of creating logical volumes, it gathers *extents* (from a volume group), not disk partitions.

42. By way of further example, neither Red Hat nor its products and/or services have infringed, induced others to infringe, or contributed to infringement by others of any claim of the '436 Patent, because RHEL and LVM do not include "[a] method for managing a logical volume in order to support ... minimizing a size of metadata."

43. Additionally, neither Red Hat nor its products and/or services have infringed, induced others to infringe, or contributed to the infringement by others of any claim of the '436 Patent, because RHEL and LVM do not include "a mapping table for maintaining a mapping information for a physical address space."

44. With respect to dependent claims 3, 7, and 14 of the '436 Patent, neither Red Hat nor its products and/or services have infringed, induced others to infringe, or contributed to the infringement by others because RHEL and LVM do not "stor[e] [a] mirror data table to each corresponding mirror in an overlapped manner" as required by those claims.

45. Red Hat seeks and is entitled to a declaratory judgment that neither it nor its products and/or services infringe or have infringed under 35 U.S.C. § 271 (or any sub-section thereof) any claim of the '436 Patent.

46. Because neither Red Hat, nor its products and/or services infringe, and because the use of those products and/or services by Red Hat's customers has not infringed under 35 U.S.C. § 271 (or any sub-section thereof) any claim of the '436 Patent, Red Hat seeks and is entitled to a declaratory judgment that Red Hat's products and/or services have not infringed and do not infringe under 35 U.S.C. § 271 (or any sub-section thereof) any claim of thereof) any claim of the '436 Patent based on its customers' purported use of Red Hat's products and/or services, or otherwise.

SECOND CLAIM FOR RELIEF (Declaratory Judgment of Invalidity of the '436 Patent)

47. Red Hat realleges and incorporates paragraphs 1 through 46 as if fully set forth herein.

48. Each and every claim of the '436 Patent is invalid for failure to comply with one or more of the requirements of the patent laws of the United States, including without limitation 35 U.S.C. §§ 101, 102, 103, and 112.

49. For example, each and every claim of the '436 Patent is anticipated and/or rendered obvious by HP-UX.

50. The HP-UX Operating System ("HP-UX") is Hewlett Packard Enterprise's implementation of the UNIX operating system.

51. Sequoia accuses HP-UX of infringement of the '436 Patent. See Exhibit E.

52. On information and belief, a version of HP-UX was on sale in the United States at least as early as 1995, and as such is prior art to the '436 Patent under at least pre-AIA 35 U.S.C. § 102(b).

53. On information and belief, said prior-art version of HP-UX contained a logical volume manager that practiced every claim of the '436 Patent, or rendered such claims obvious.

54. Accordingly, every claim of the '436 Patent is invalid as anticipated and/or rendered obvious by HP-UX.

55. On information and belief, neither HP-UX OS nor HP-UX OS's logical volume manager were considered by the United States Patent and Trademark Office during the prosecution of the '436 Patent.

56. To resolve the legal and factual questions raised by Sequoia, and to afford relief from the uncertainty and controversy that Sequoia's accusations have precipitated, Red Hat is entitled to a declaratory judgment pursuant to the Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, that each and every claim of the '436 Patent is invalid for failure to comply with one or more of the requirements of the patent laws of the United States, including without limitation to 35 U.S.C. §§ 101, 102, 103, and 112.

57. At the time Red Hat served its original complaint in this case, Sequoia knew or should have known that each and every claim of the '436 Patent was invalid, including for the reason that one of the operating systems Sequoia accuses of infringing the '436 Patent, HP-UX, in fact predates the '436 Patent, and therefore anticipates or renders obvious the '436 Patent.

REQUEST FOR RELIEF

WHEREFORE, Red Hat respectfully requests the Court to enter judgment in its favor and against Sequoia as follows:

1. That neither Red Hat nor its products or services have infringed or do infringe under 35 U.S.C. § 271 (or any sub-section thereof) any claim of the '436 Patent;

- That Red Hat's customers' products and/or services have not infringed and do not infringe under 35 U.S.C. § 271 (or any sub-section thereof) any claim of the '436 Patent based on their purported use of Red Hat's products and/or services;
- 3. Enjoining Sequoia, ETRI, and their officers, employees or agents from (1) alleging that Red Hat or its customers infringe the '436 Patent; (2) taking any action to suggest that Red Hat or its customers require a license from Sequoia and/or ETRI for use of the '436 Patent; or (3) pursuing or continuing to pursue infringement actions against Red Hat's customers on the basis of those customers' use of Red Hat's products and services;
- 4. Declaring this to be an exceptional case within the meaning of 35 U.S.C. § 285;
- 5. For an award costs and reasonable attorneys' fees incurred in connection with this action; and
- 6. For such other and further relief as the Court deems just and proper.

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September 13, 2019

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CERTIFICATE OF SERVICE

I hereby certify that on September 13, 2019, I caused the foregoing to be electronically filed with the Clerk of the Court using CM/ECF, which will send notification of such filing to all registered participants.

I further certify that I caused copies of the foregoing document to be served on September 13, 2019, upon the following in the manner indicated:

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