FILED

IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA Alexandria Division

SPHERIX INCORPORATED,

Plaintiff,

v.

VERIZON SERVICES CORP.; VERIZON SOUTH INC.; VERIZON VIRGINIA LLC; VERIZON COMMUNICATIONS INC.; VERIZON FEDERAL INC.; VERIZON BUSINESS NETWORK SERVICES INC.; MCI COMMUNICATIONS SERVICES, INC.

Defendants.

2014 JUN 11 P 4: 44

CLERK US DISTRICT COURT ALEXANDRIA, VIRGINIA

1:14CV 721-681-TCR Civil Action No.

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff, Spherix Incorporated ("Spherix") for its complaint against defendants Verizon Services Corp., Verizon South Inc., Verizon Virginia LLC, Verizon Communications Inc. (collectively, "Verizon Services, South, Virginia, and Communications"), Verizon Federal Inc., Verizon Business Network Services Inc., and MCI Communications Services, Inc. ("Verizon" for all defendants) alleges as follows:

THE PARTIES

 Spherix is a corporation duly organized and existing under the laws of the State of Delaware with its principal place of business at 6430 Rockledge Drive, Suite 503, Bethesda, Maryland 20817. 2. Upon information and belief, Verizon Services Corp. ("Verizon Services") is a corporation duly organized and existing under the laws of the State of Delaware, with its principal place of business at 1310 North Courthouse Road, Arlington, Virginia 22201.

3. Upon information and belief, Verizon South Inc. ("Verizon South") is a corporation duly organized and existing under the laws of the Commonwealth of Virginia with its principal place of business at 703 East Grace Street, Richmond, Virginia 23219.

4. Upon information and belief, Verizon Virginia LLC ("Verizon Virginia") is a company duly organized and existing under the laws of the Commonwealth of Virginia with its principal place of business at 703 East Grace Street, Richmond, Virginia 23219.

5. Upon information and belief, Verizon Communications Inc. ("Verizon Communications") is a corporation duly organized and existing under the laws of the State of Delaware, with its principal place of business at 140 West Street, New York, New York 10013. Verizon Communications can be served with process through its agent CT Corporation System, 4701 Cox Road, Suite 285, Glen Allen, Virginia 23060.

6. Upon information and belief, Verizon Federal Inc. ("Verizon Federal") is a corporation duly organized and existing under the laws of the State of Delaware, with its principal place of business at 22001 Loudon County Parkway Ashburn, Virginia 20147.

7. Upon information and belief, Verizon Business Network Services Inc. ("Verizon Business") is a corporation duly organized and existing under the laws of the State of Delaware, with its principal place of business at One Verizon Way, P.O. Box 627, Basking Ridge, New

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Jersey 07920. Verizon Business can be served with process through its agent CT Corporation System, 4701 Cox Road, Suite 285, Glen Allen, Virginia 23060.

8. Upon information and belief, MCI Communications Services, Inc. ("MCI") is a corporation duly organized and existing under the laws of the State of Delaware, with its principal place of business at One Verizon Way, P.O. Box 627, Basking Ridge, New Jersey 07920. MCI can be served with process through its agent CT Corporation System, 4701 Cox Road, Suite 285, Glen Allen, Virginia 23060.

JURISDICTION

9. This is an action for patent infringement under the patent laws of the United States, Title 35 U.S.C. of the United States Code, arising from Verizon's manufacture, use, sale or offer for sale of various products and services, including, but not limited to, network services such as FiOS and telephony services during the term of U.S. Patent Nos. 6,507,648; 6,882,800; 6,980,564; and 8,166,533. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the patent laws of the United States, including at least 35 U.S.C. § 271 (a)-(c).

10. Upon information and belief, this Court has personal jurisdiction over Verizon Services because Verizon Services has its principal place of business at 1310 North Courthouse Road, Arlington, Virginia and thus resides in this District, and has transacted business, contracted and committed acts of infringement in this District out of which this complaint arises. Further, Verizon Services has purposefully availed itself of the benefits of this District by filling lawsuits in this District. The exercise of jurisdiction over Verizon Services would not offend traditional notions of fair play and substantial justice. 11. Upon information and belief, this Court has personal jurisdiction over Verizon South because Verizon South is a Virginia corporation with its principal place of business at 703 East Grace Street, Richmond, Virginia and thus resides in this District, and has transacted business, contracted, and committed acts of infringement in this District out of which this complaint arises. Further, Verizon South has purposefully availed itself of the benefits of this District by filling lawsuits in this District. The exercise of jurisdiction over Verizon South would not offend traditional notions of fair play and substantial justice.

12. Upon information and belief, this Court has personal jurisdiction over Verizon Virginia because Verizon Virginia is a Virginia company with its principal place of business at 703 East Grace Street, Richmond, Virginia and thus resides in this District, and has transacted, contracted, and committed acts of infringement in this District out of which this complaint arises. Further, Verizon Virginia has purposefully availed itself of the benefits of this District by filling lawsuits in this District. The exercise of jurisdiction over Verizon Virginia would not offend traditional notions of fair play and substantial justice.

13. Upon information and belief, this Court has personal jurisdiction over Verizon Communications because Verizon Communications is registered to do business, and maintains a registered agent for service of process, in this District, and thus is present in, and has purposefully availed itself of the benefits of the laws of this District, and has directly and through directing and controlling the actions of its wholly-owned subsidiaries and affiliates, Verizon Services, Verizon South, Verizon Virginia, Verizon Federal, Verizon Business, and MCI has transacted business, contracted, and committed acts of infringement in this District out of which this complaint arises. Further, Verizon Communications has purposefully availed itself of the

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benefits of this District by filling lawsuits in this District. The exercise of jurisdiction over Verizon Communications would not offend traditional notions of fair play and substantial justice.

14. Upon information and belief, this Court has personal jurisdiction over Verizon Federal because Verizon Federal has its principal place of business at 22001 Loudon County Parkway Ashburn, Virginia and thus resides in this District, and has transacted business, contracted, and committed acts of infringement in this District out of which this complaint arises. The exercise of jurisdiction over Verizon Federal would not offend traditional notions of fair play and substantial justice.

15. Upon information and belief, this Court has personal jurisdiction over Verizon Business and MCI because Verizon Business and MCI are registered to do business, and maintain a registered agent for service of process, in this District, and thus are present in, and have purposefully availed themselves of the benefits of the laws of this District, and have transacted business, contracted, and committed acts of infringement in this District out of which this complaint arises. Further, Verizon Business and MCI have purposefully availed themselves of the benefits of this District by filling at least one lawsuit in this District. The exercise of jurisdiction over Verizon Business and MCI would not offend traditional notions of fair play and substantial justice.

VENUE

16. Upon information and belief, venue is proper in this District pursuant to 28 U.S.C. §§ 1391 and 1400 because defendants, through their contacts with this District, including the making, using, selling and offering for sale of FiOS network services, reside in and are subject to personal jurisdiction in this District.

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BACKGROUND

17. This lawsuit asserts causes of action for infringement of United States Patent Nos. 6,507,648; 6,882,800; 6,980,564; and 8,166,533 (collectively, the "Asserted Patents"). All of the inventions disclosed and claimed in the Asserted Patents were assigned to the entities in Nortel corporate family ("Nortel").

18. During bankruptcy proceedings many years later, Nortel sold the Asserted Patents, among others, to a consortium of technology companies known as Rockstar Bidco, LP. Spherix now owns the Asserted Patents, and has the exclusive right to sue for infringement and recover damages for all past, present, and future infringement.

19. Nortel's history is inextricably intertwined with the origins of telecommunications. Alexander Graham Bell invented the telephone in 1874, for which he received a United States Letters Patent in 1876 (U.S. Patent No. 174,465). The Bell Telephone Company (later AT&T) was formed in 1877. Bell Canada was formed three years later, in 1880. Nortel was formed as the manufacturing arm of Bell Canada in 1895. In its early years, Nortel was instrumental in establishing the Canadian telecommunications industry. By the mid-twentieth century, Nortel had matured into a global research and development powerhouse.

20. At its peak in 2000, Nortel had grown to more than 90,000 employees worldwide, including 35,000 in the United States, had market capitalization of nearly \$300 billion and had yearly revenues approaching \$30 billion. In 2000 alone, for example, Nortel spent nearly \$4 billion on research and development involving some 25,000 research and development employees world-wide, including nearly 10,000 in the United States.

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21. Nortel had offices world-wide, with over 100 locations in the United States alone. Nortel was an innovator in the telecommunications industry. For example, Nortel was one of the first to envision telecommunications over fiber optics; it led the industry's move to the era of digital telecommunications; it was the first to develop a telephone with the controls in the handset rather than in the base; and it contributed to the development of numerous telecommunications standards and created core technology necessary to implement many of those standards. From 1992 through 2009, Nortel invested more than \$34 billion into research and development.

22. Nortel's substantial research and development investments, and the inventiveness of the Nortel technology professionals, directly resulted in Nortel receiving well over 6,000 active patents and patent applications covering wireless, wireless 4G, data networking, optical, voice, internet, service provider, semiconductor and other telecommunications as of July 2011.

23. Nortel made patents a priority and its employees received bonuses for their innovations. Each of the Asserted Patents issued as the result of the inventiveness of Nortel personnel and Nortel's significant research investment.

24. Each of the named inventors of the Asserted Patents assigned all of their rights in the respective Asserted Patent to Nortel.

25. Nortel entered bankruptcy protection in 2009. As part of the bankruptcy, Nortel sold a portion of its patent assets for an unprecedented and widely-publicized \$4.5 billion — which was \$1.3 billion more than the combined value of all of Nortel's business units that were sold prior to the patent auction. The purchasers were a consortium of leading technology

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companies collectively known as Rockstar Bidco, LP. Among the assets sold to Rockstar Bidco, LP were the Asserted Patents.

26. Rockstar Bidco, LP transferred the patents to Rockstar Consortium US, LP ("Rockstar"), an intellectual property company built on a core of former Nortel technology and business professionals. Many of Rockstar's employees are former Nortel employees, including former Nortel engineers, managers and attorneys.

27. Plaintiff Spherix was founded in 1967 as a scientific research company. Spherix's common stock trades on the NASDAQ Capital Market system under the symbol SPEX.

28. Historically, Spherix has focused on biotechnology research and development. Its research has led to numerous patents and patent applications relating to diverse innovative biotechnologies such as water purification, biodegradation management, and the use of tagatose for food and potentially medical and environmental applications. Spherix acquired the Asserted Patents.

29. Spherix has formed a Technology Advisory Board to identify and address market opportunities for innovative technology, including telecommunications technology. Part of the purpose of the creation of the Technology Advisory Board is to reward and provide compensation to the inventors of the patents Spherix acquires.

30. Verizon is one of the world's leading providers of communications, information and entertainment products and services to consumers, business, and governmental agencies. Verizon operates one of the largest Internet Protocol (IP) networks, and one of the largest optical networks, in the world, each of which is used to provide voice and data services to customers

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across the United States. Verizon has a workforce of approximately one-hundred and seventy six thousand employees, and Verizon's consolidated revenue is approximately \$120 Billion dollars.

31. Verizon operates IP networks in the United States, including in the Eastern District of Virginia. Verizon uses its IP networks to offer various services, including FiOS, VoIP, and internet services in the state of Virginia, including in the Eastern District of Virginia.

32. Verizon also provides telephony services in the United States, including in the Eastern District of Virginia.

COUNT I INFRINGEMENT OF U.S. PATENT NO. 6,507,648

33. On January 14, 2003, United States Letters Patent No. 6,507,648 (the "'648 patent") for "Method and Apparatus for Prioritizing Voice and Data in a Circuit-Switched Network," was duly and legally issued to Kevin W. Golka, John R. Donak and Lorne A. Porter. All rights and interest in the '648 patent have been assigned to Spherix. A true and correct copy of the '648 patent is attached hereto as Exhibit A.

34. Upon information and belief, Verizon has directly infringed and continues to directly infringe the '648 patent. The infringing acts include at least the making, using, selling and/or offering for sale of switching units, software and/or methods for processing call requests, and/or related products and/or services, that implement Multilevel Precedence and Preemption (MLPP) that are covered by one or more claims of the '648 patent. Verizon is liable for infringement of the '648 patent pursuant to at least 35 U.S.C. § 271 (a).

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35. Upon information and belief, at least as of the service of this complaint, Verizon indirectly infringes one or more claims of the '648 patent by actively inducing infringement by their corporate affiliates ("corporate affiliates" as used throughout, includes, but is not limited to one or more defendants), customers, and/or vendors, who directly infringe the '648 patent by making, using, selling and/or offering for sale switching units, software and/or methods for processing call requests, and/or related products and/or services, that are covered by one or more claims of the '648 patent, in violation of 35 U.S.C. § 271 (b). Verizon, at least as of the service of this complaint, will have done this with knowledge of the '648 patent and with knowledge that the infringing acts, if taken, constitute infringement or with a belief that there is a high probability that the infringing acts, if taken, would constitute infringement, but will have deliberately avoided confirming that belief.

36. Upon information and belief, at least as of the service of this complaint, Verizon contributorily infringes one or more claims of the '648 patent by selling and/or offering for sale switching units, software and/or methods for processing call requests, and/or related products and/or services, and/or components thereof, which are not staple articles of commerce and when combined and/or used by corporate affiliates, customers, and/or vendors, can only be combined and/or used in a way that infringes one or more claims of the '648 patent in violation of 35 U.S.C. § 271 (c). Verizon, at least as of the service of this complaint, will have done this with knowledge of the '648 patent and with knowledge that the switching units, software and/or methods for processing call requests, and/or related products and/or services, and/or components thereof constitute a material part of the invention claimed in the '648 patent.

37. The acts of infringement by Verizon have caused damage to Spherix, and Spherix is entitled to recover from Verizon the damages sustained by Spherix as a result of the wrongful

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acts of Verizon, in an amount subject to proof at trial. Infringement of the '648 patent by Verizon continues to cause damage to Spherix.

COUNT II INFRINGEMENT OF U.S. PATENT NO. 6,882,800

38. On April 19, 2005, United States Letters Patent No. 6,882,800 (the "'800 patent") for "Optical Switching System for Switching Opticals [sic] Signals in Wavelength Groups," was duly and legally issued to Alan F. Graves. All rights and interest in the '800 patent have been assigned to Spherix. A true and correct copy of the '800 patent is attached hereto as Exhibit B.

39. Upon information and belief, Verizon has directly infringed and continues to infringe the '800 patent. The infringing acts include at least making, using, selling and/or offering for sale optical switching systems, and/or related products and/or services, including, for example and without limitation, optical switching systems with OADM nodes, using, for example the Cisco ONS 15454 and cross-connect card, and related products and/or services, that are covered by one or more claims of the '800 patent. Verizon is liable for infringement of the '800 patent pursuant to at least 35 U.S.C. § 271 (a).

40. Upon information and belief, at least as of the service of this complaint, Verizon indirectly infringes one or more claims of the '800 patent by actively inducing infringement by their corporate affiliates, customers, and/or vendors, who directly infringe the '800 patent by making, using, selling and/or offering for sale optical switching systems, and/or related products and/or services, that are covered by one or more claims of the '800 patent, in violation of 35 U.S.C. § 271 (b). Verizon, at least as of the service of this complaint, will have done this with knowledge of the '800 patent and with knowledge that the infringing acts, if taken, constitute

infringement or with a belief that there is a high probability that the infringing acts, if taken, would constitute infringement, but will have deliberately avoided confirming that belief.

41. Upon information and belief, at least as of the service of this complaint, Verizon contributorily infringes one or more claims of the '800 patent by selling and/or offering for sale optical switching systems, and/or related products and/or services, and/or components thereof, which are not staple articles of commerce and when combined and/or used by corporate affiliates, customers, and/or vendors, can only be combined and/or used in a way that infringes one or more claims of the '800 patent in violation of 35 U.S.C. § 271 (c). Verizon, at least as of the service of this complaint, will have done this with knowledge of the '800 patent and with knowledge that the optical switching systems, and/or related products and/or services, and/or components thereof constitute a material part of the invention claimed in the '800 patent.

42. The acts of infringement by Verizon have caused damage to Spherix, and Spherix is entitled to recover from Verizon the damages sustained by Spherix as a result of the wrongful acts of Verizon, in an amount subject to proof at trial. Infringement of the '800 patent by Verizon continues to cause damage to Spherix.

COUNT III INFRINGEMENT OF U.S. PATENT NO. 6,980,564

43. On December 27, 2005, United States Letters Patent No. 6,980,564 (the "'564 patent") for "Modular Data Communication Equipment System," was duly and legally issued to Juan O. Rodriguez, David J. Berman, and James D. Lakin, Roswell. All rights and interest in the '564 patent have been assigned to Spherix. A true and correct copy of the '564 patent is attached hereto as Exhibit C.

44. Upon information and belief, Verizon Services, South, Virginia, and Communications have directly infringed and continue to infringe the '564 patent. Upon information and belief, the infringing acts include at least making, using, selling and/or offering for sale network interface units, service delivery units, systems including such units, and/or related products and/or services, including, for example and without limitation, FiOS products and/or systems that include Optical Network Terminals (ONTs) that communicate with any one of a family of set top boxes, routers and/or other customer premises equipment, that are covered by one or more claims of the '564 patent. Verizon Services, South, Virginia, and Communications are liable for infringement of the '564 patent pursuant to at least 35 U.S.C. § 271 (a).

45. Upon information and belief, at least as of the service of this complaint, Verizon Services, South, Virginia, and Communications indirectly infringe one or more claims of the '564 patent by actively inducing infringement by their corporate affiliates, customers, and/or vendors, who directly infringe the '564 patent by making, using, selling and/or offering for sale network interface units, service delivery units, systems including such units, and/or related products and/or services, that are covered by one or more claims of the '564 patent, in violation of 35 U.S.C. § 271 (b). Verizon Services, South, Virginia, and Communications, at least as of the service of this complaint, will have done this with knowledge of the '564 patent and with knowledge that the infringing acts, if taken, constitute infringement or with a belief that there is a high probability that the infringing acts, if taken, would constitute infringement, but will deliberately avoid confirming that belief.

46. Upon information and belief, at least as of the service of this complaint, Verizon Services, South, Virginia, and Communications contributorily infringe one or more claims of

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the '564 patent by selling and/or offering for sale network interface units, service delivery units, systems including such units, and/or related products and/or services, and/or components thereof, which are not staple articles of commerce and when combined and/or used by corporate affiliates, customers, and/or vendors, can only be combined and/or used in a way that infringes one or more claims of the '564 patent in violation of 35 U.S.C. § 271 (c). Verizon Services, South, Virginia, and Communications, at least as of the service of this complaint, will have done this with knowledge of the '564 patent and with knowledge that the network interface units, service delivery units, systems including such units, and/or related products and/or services, and/or components thereof constitute a material part of the invention claimed in the '564 patent.

47. The acts of infringement by Verizon Services, South, Virginia, and Communications have caused damage to Spherix, and Spherix is entitled to recover from Verizon Services, South, Virginia, and Communications the damages sustained by Spherix as a result of the wrongful acts of Verizon Services, South, Virginia, and Communications in an amount subject to proof at trial. Infringement of the '564 patent by Verizon Services, South, Virginia, and Communications continues to cause damage to Spherix.

COUNT IV INFRINGEMENT OF U.S. PATENT NO. 8,166,533

48. On April 24, 2012, United States Letters Patent No. 8,166,533 (the "'533 patent") for "Method for Providing Media Communication Across Firewalls," was duly and legally issued to Wei Yuan. All rights and interest in the '533 patent have been assigned to Spherix. A true and correct copy of the '533 patent is attached hereto as Exhibit D.

49. Upon information and belief, Verizon has directly infringed and continues to infringe the '533 patent. The infringing acts include at least making, using, selling and/or

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offering for sale a packet-based communications network, a method for routing information packets, and/or related products and/or services, including, for example and without limitation, a packet-based communications network and/or a method for routing information packets, and related products and/or services that employ the SIP protocol for communicating across firewalls, that are covered by one or more claims of the '533 patent. Verizon is liable for infringement of the '533 patent pursuant to at least 35 U.S.C. § 271 (a).

50. Upon information and belief, at least as of the service of this complaint, Verizon indirectly infringes one or more claims of the '533 patent by actively inducing infringement by their corporate affiliates, customers, and/or vendors, who directly infringe the '533 patent by making, using, selling and/or offering for sale a packet-based communications network, a method for routing information packets, and/or related products and/or services, that are covered by one or more claims of the '533 patent, in violation of 35 U.S.C. § 271 (b). Verizon, at least as of the service of this complaint, will have done this with knowledge of the '533 patent and with knowledge that the infringing acts, if taken, constitute infringement or with a belief that there is a high probability that the infringing acts, if taken, would constitute infringement, but will have deliberately avoided confirming that belief.

51. Upon information and belief, at least as of the service of this complaint, Verizon contributorily infringes one or more claims of the '533 patent by selling and/or offering for sale a packet-based communications network, a method for routing information packets, and/or related products and/or services, and/or components thereof, which are not staple articles of commerce and when combined and/or used by corporate affiliates, customers, and/or vendors, can only be combined and/or used in a way that infringes one or more claims of the '533 patent in violation of 35 U.S.C. § 271 (c). Verizon, at least as of the service of this complaint, will have done this

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with knowledge of the '533 patent and with knowledge that the a packet-based communications network, a method for routing information packets, and/or related products and/or services, and/or components thereof constitute a material part of the invention claimed in the '533 patent.

52. The acts of infringement by Verizon have caused damage to Spherix, and Spherix is entitled to recover from Verizon the damages sustained by Spherix as a result of the wrongful acts of Verizon, in an amount subject to proof at trial. Infringement of the '533 patent by Verizon continues to cause damage to Spherix.

PRAYER FOR RELIEF

WHEREFORE, Spherix prays for judgment and seeks relief as follows:

(a) For judgment that the claims of the '648 patent have been and/or continue to be infringed;

(b) For judgment that the claims of the '800 patent have been and/or continue to be infringed;

(c) For judgment that the claims of the '564 patent have been and/or continue to be infringed;

(d) For judgment that the claims of the '533 patent have been and/or continue to be infringed;

(e) For an accounting of all damages sustained by Spherix as the result of Verizon's acts of infringement.

(f) For actual damages together, with prejudgment and post-judgment interest, and post-judgment royalties, according to proof;

(g) For an award of attorney's fees pursuant to 35 U.S.C. § 285 or as otherwise permitted by law;

(h) For all costs of suit; and

(i) For such other and further relief as the Court may deem just and proper.

JURY DEMAND

Pursuant to Fed. R. Civ. P. 38, Plaintiff demands a trial by jury of any and all issues properly triable to a jury.

Dated:

Respectfully Submitted:

S. Ken By:

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