

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

JSDQ MESH TECHNOLOGIES LLC,

Plaintiff,

v.

**SILVER SPRING NETWORKS, INC. and
PEPCO HOLDINGS, INC.,**

Defendants.

Case No.:

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff JSDQ Mesh Technologies LLC complains of Defendants Silver Spring Networks, Inc. and Pepco Holdings, Inc. as follows:

NATURE OF LAWSUIT

1. This is a claim for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code.

THE PARTIES

2. JSDQ Mesh Technologies LLC (“JSDQ”) is a Delaware limited liability company with its principal place of business at 401 Lake Avenue, Round Lake Beach, Illinois 60073.

3. JSDQ is the named assignee of, owns all right, title and interest in, and has standing to sue for infringement of United States Patent No. 7,286,828, entitled “Method of Call Routing and Connection,” which issued on October 23, 2007 (the “‘828 Patent”) (a true and correct copy is attached as Exhibit A); United States Reissue Patent No. RE43,675, entitled “Wireless Radio Routing System,” which issued on September 18, 2012 (the “‘675 Patent”) (a true and correct copy is attached as Exhibit B); and United States Reissue Patent No. RE44,607,

entitled “Wireless Mesh Routing Method,” which issued on November 19, 2013 (the “‘607 Patent”) (a true and correct copy is attached as Exhibit C) (collectively, the “Patents-in-Suit”).

4. Defendant Silver Spring Networks, Inc. (“Silver Spring”) is a Delaware corporation with a listed registered agent of Incorporating Services, LTD., located at 3500 South DuPont Highway, Dover, Delaware 19901.

5. Defendant Silver Spring claims to “create[] the critical networking infrastructure for the Smart Grid, known as a Smart Energy Network”, which “addresses the challenges of running multiple applications and devices on a common networking infrastructure using multiple transport technologies, dramatically improving efficiency, lowering costs and ensuring the reliable delivery of services.”

6. Defendant Silver Spring provides wireless networking solutions to businesses throughout the United States including Delaware and this Judicial District.

7. Defendant Pepco Holdings, Inc. (“Pepco”) is a Delaware corporation with a listed registered agent of PHI Service Company, located at 500 North Wakefield Drive, Newark, Delaware 19702.

8. Defendant Pepco claims to be “one of the largest energy deliver companies in the Mid-Atlantic region, serving about 1.9 million customers in Delaware, the District of Columbia, Maryland and New Jersey.”

9. Defendant Pepco, through its subsidiaries, provides regulated electricity service and natural gas service throughout the United States including Delaware and this Judicial District.

10. On or about February 3, 2009, Defendant Pepco selected Defendant Silver Spring “to provide advanced networking products and services to build a Smart Grid network that will

serve [Pepco's] 1.9 million customers in Delaware, Maryland, New Jersey and Washington D.C.”

11. According to Defendant Silver Spring, on or about February 3, 2009, Defendant Silver Spring and Defendant Pepco “signed a definitive agreement and deployment activity is underway. Initial deployments will occur in the Delmarva Power & Light service territory in Delaware, with deployment it all [Pepco] customers anticipated by 2013.”

12. Moreover, Defendant Silver Spring has stated: “Under the multi-year agreement, Silver Spring Networks will provide network infrastructure, devices, software and a variety of services in support of [Pepco's] efforts.”

JURISDICTION AND VENUE

13. This Court has exclusive jurisdiction over the subject matter of the Complaint under 28 U.S.C. §§ 1331 and 1338(a).

14. Personal jurisdiction over Defendants is proper in this Court. Venue in this judicial district is proper under 28 U.S.C. §§ 1391(b), (c) and/or 1400(b).

THE ACCUSED WIRELESS ROUTING SYSTEMS

15. Defendants infringe the Patents-in-Suit through the manufacture, sale, offer for sale and/or use of Silver Spring wireless networking products, services and solutions.

16. Specifically, Defendant Silver Spring offers Smart Grid Mesh Network solutions for its customers like Defendant Pepco.

17. Moreover, Defendant Silver Spring states: “At the start of every project, we apply our mesh network design and deployment expertise to [a customer's] GIS database and [their] meter location data. We create a scalable mesh network design plan for how to implement an efficient and effective communications network within [their] service territory.”

18. Additionally, Defendant Silver Spring states: “After designing where to place the network devices to ensure excellent and sustainable performance, Silver Spring trains [a customer’s] deployment teams on RF issues, as well as how to use our field tool and install meters with Silver Spring Communications Modules and Silver Spring Access Points, Relays, and the Bridge family. We accompany [a customer’s] field ops or contractors in the field for the early part of the deployment and assist in troubleshooting problems thereafter as the deployment continues.”

19. Defendant Silver Spring’s communication modules utilize the 802.15.4 and ZigBee protocols.

20. Defendant Silver Spring’s products embodying the 802.15.4 and ZigBee protocols (including ZigBee’s routing algorithms) – including hardware (e.g., access points, antennas, etc.), software, and firmware components associated therewith – are herein referred to as the “Accused Wireless Routing Systems”.

21. Defendant Silver Spring at least indirectly infringes the Patents-in-Suit through the manufacture, sale, offer for sale and/or use of the Accused Wireless Routing Systems and other third party components combined therewith.

22. Upon information and belief, Defendant Silver Spring directly infringes the Patents-in-Suit at least through its use and installation of the Accused Wireless Routing Systems.

23. Defendant Pepco directly infringes the Patents-in-Suit at least through the use of the Accused Wireless Routing Systems.

INFRINGEMENT BY DEFENDANT SILVER SPRING

INFRINGEMENT OF UNITED STATES PATENT NO. 7,286,828

24. JSDQ realleges and incorporates by reference paragraphs 1 through 23, inclusive, as though fully set forth herein.

25. Defendant Silver Spring infringes at least independent method claims 47, 56 and 68 of the '828 Patent through the manufacture, sale, offer for sale and/or use of the Accused Wireless Routing Systems.

Claim 47

26. The Accused Wireless Routing Systems, as manufactured, sold, offered for sale and/or used by Defendant Silver Spring, provide a radio communication route among a plurality of individual nodes capable of distribution arbitrarily relative to each other, said nodes being controllable independent of a central computer separate from said nodes, in accordance with the limitations of claim 47 of the '828 Patent.

27. The Accused Wireless Routing Systems, as manufactured, sold, offered for sale and/or used by Defendant Silver Spring, perform each of the limitations of claim 47 of the '828 Patent by:

- (a) establishing radio links between pairs of said nodes using radio signals transmitted from each said node and received by other said nodes without regard to the relative locations of said nodes of said pair, wherein at least some of said radio signals include associated routing messages including an actual radio parameter of said radio signals;
- (b) storing said routing messages received by each said node;
- (c) selecting a said routing message associated with a preferred said radio link using said actual radio parameter of said received radio signals;
- (d) deleting at least some of said other stored routing messages;
- (e) modifying said selected routing message;
- (f) retransmitting said modified routing message; and

- (g) assembling said preferred radio links into a radio communication route between an originating node and a destination node, said route including plural said radio links.

Claim 56

28. The Accused Wireless Routing Systems, as manufactured, sold, offered for sale and/or used by Defendant Silver Spring, provide a radio communication route among a plurality of individual nodes capable of distribution arbitrarily relative to each other, said nodes being controllable independent of a central computer separate from said nodes, in accordance with the limitations of claim 56 of the '828 Patent.

29. The Accused Wireless Routing Systems, as manufactured, sold, offered for sale and/or used by Defendant Silver Spring, perform each of the limitations of claim 56 of the '828 Patent by:

- (a) establishing radio links between pairs of said nodes using radio signals transmitted from each said node and received by other said nodes without regard to the relative locations of said nodes of said pair, at least some of said radio signals including routing messages;
- (b) storing said routing messages received by each said node;
- (c) selecting a said routing message associated with a preferred said radio link using a parameter of said routing messages in said received radio signals;
- (d) modifying said selected routing message;
- (e) deleting at least some of said other stored routing messages;
- (f) retransmitting said modified routing message;

(g) assembling said preferred radio links into an optimum radio communication route between an originating node and a destination node, said route including plural said radio links; and

(h) changing said route between said originating node and said destination node only when a condition of the route changes.

Claim 68

30. The Accused Wireless Routing Systems, as manufactured, sold, offered for sale and/or used by Defendant Silver Spring, provide a wireless communication route having a plurality of individual routing nodes distributed to form a mesh of said routing nodes throughout an area covered by a wireless communication system, in accordance with the limitations of claim 68 of the '828 Patent.

31. The Accused Wireless Routing Systems, as manufactured, sold, offered for sale and/or used by Defendant Silver Spring, perform each of the limitations of claim 68 of the '828 Patent by:

(a) establishing wireless links between pairs of said routing nodes using wireless signals transmitted from each said routing node and received by other said routing nodes without regard to the relative locations of said routing nodes of said pair, at least some of said wireless signals including routing messages;

(b) storing said routing messages received by each said node;

(c) selecting a said routing message associated with a preferred said wireless link using a parameter of said received wireless signals;

(d) modifying said selected routing message;

(e) deleting at least some of said other stored routing messages;

- (f) retransmitting said modified routing messages; and
- (g) assembling said preferred wireless links into an optimum wireless communication route between a remote routing node and a destination routing node, said route including plural said wireless links.

32. To the extent required by law, JSDQ has complied with the provisions of 35 U.S.C. § 287.

33. Defendant Silver Spring had notice of the '828 Patent and the likelihood of infringement at least as early as September 10, 2015, on which date JSDQ provided correspondence identifying the Patents-in-Suit and the likelihood of infringement thereof.

34. Upon information and belief, the Accused Wireless Routing Systems are material to practicing the inventions of the '828 Patent, have no substantial non-infringing uses, and are known by Defendant Silver Spring to be especially made for use in an infringement of the '828 Patent.

35. Upon information and belief, Defendant Silver Spring specifically intended its customers (including Defendant Pepco) to directly infringe the '828 Patent (as set forth below) and knew that the customers' acts constituted infringement.

36. Defendant Silver Spring's infringement as described above has injured and will continue to injure JSDQ as long as such infringement continues. JSDQ is entitled to recover damages adequate to compensate it for such infringement, but in no event less than a reasonable royalty.

INFRINGEMENT OF UNITED STATES REISSUE PATENT NO. RE 43,675

37. JSDQ realleges and incorporates by reference paragraphs 1 through 23, inclusive, as though fully set forth herein.

38. Defendant Silver Spring infringes at least independent method claim 15 of the '675 Patent through the manufacture, sale, offer for sale and/or use of the Accused Wireless Routing Systems in conjunction with directional radio signals.

Claim 15

39. The Accused Wireless Routing Systems, as manufactured, sold, offered for sale and/or used by Defendant Silver Spring, provide a radio communication route among individual nodes capable of distribution arbitrarily relative to each other, in accordance with the limitations of claim 15 of the '675 Patent.

40. The Accused Wireless Routing Systems, as manufactured, sold, offered for sale and/or used by Defendant Silver Spring, perform each of the limitations of claim 15 of the '675 Patent by:

- (a) establishing radio links between respective pairs of said nodes, at least one said node using a directional radio signal transmitted from said node and received directly by another said node without regard to the relative locations of said nodes;
- (b) measuring a value of a radio parameter of a said directional radio signal received by at least one said node;
- (c) transmitting from said at least one node a radio signal with an associated routing message based on at least one measured value of the radio parameter; and
- (d) assembling a radio communication route between an originating node and a destination node, said route being assembled by computers in a plurality of said nodes using routing messages received by said nodes, wherein said computers in said nodes assemble said route independently of any computer separate from said nodes in said

route, and said route includes at least one route segment with a said node transmitting a directional radio signal.

41. To the extent required by law, JSDQ has complied with the provisions of 35 U.S.C. § 287.

42. Defendant Silver Spring had notice of the '675 Patent and the likelihood of infringement at least as early as September 10, 2015, on which date JSDQ provided correspondence identifying the Patents-in-Suit and the likelihood of infringement thereof.

43. Upon information and belief, Defendant Silver Spring specifically intended its customers (including Defendant Pepco) to directly infringe the '675 Patent (as set forth below) and knew that the customers' acts constituted infringement.

44. Defendant Silver Spring's infringement as described above has injured and will continue to injure JSDQ as long as such infringement continues. JSDQ is entitled to recover damages adequate to compensate it for such infringement, but in no event less than a reasonable royalty.

INFRINGEMENT OF UNITED STATES PATENT REISSUE NO. RE 44,607

45. JSDQ realleges and incorporates by reference paragraphs 1 through 23, inclusive, as though fully set forth herein.

46. Defendant Silver Spring infringes at least independent method claim 3 of the '607 Patent through the manufacture, sale, offer for sale and/or use of the Accused Aerohive Routing Systems in conjunction with directional radio signals.

Claim 3

47. The Accused Wireless Routing Systems, as manufactured, sold, offered for sale and/or used by Defendant Silver Spring, provide at least two radio communication routes among

individual nodes capable of distribution arbitrarily relative to each other, in accordance with the limitations of claim 3 of the '607 Patent.

48. The Accused Wireless Routing Systems, as manufactured, sold, offered for sale and/or used by Defendant Silver Spring, perform each of the limitations of claim 3 of the '607 Patent by:

- (a) establishing radio links between respective pairs of said nodes using radio signals transmitted from said nodes and received by other said nodes, wherein at least some of said radio signals include routing messages;
- (b) using a directional radio signal transmitted from one said node in a directional link and received directly by the other said node in said directional link;
- (c) measuring a parameter of radio signals received by at least some of said nodes;
- (d) transmitting from at least some of said nodes radio signals with associated routing messages based on said measured parameter; and
- (e) assembling radio communication routes between at least two originating nodes and at least one destination node, wherein computers in a plurality of said nodes use routing messages received by said nodes to assemble said routes independently of any computer separate from said nodes in said routes and without regard to the relative locations of said nodes in a said route, both said routes including at least one said directional link.

49. To the extent required by law, JSDQ has complied with the provisions of 35 U.S.C. § 287.

50. Defendant Silver Spring had notice of the '607 Patent and the likelihood of infringement at least as early as September 10, 2015, on which date JSDQ provided correspondence identifying the Patents-in-Suit and the likelihood of infringement thereof.

51. Upon information and belief, Defendant Silver Spring specifically intended its customers (including Defendant Pepco) to directly infringe the '607 Patent (as set forth below) and knew that the customers' acts constituted infringement.

52. Defendant Silver Spring's infringement as described above has injured and will continue to injure JSDQ as long as such infringement continues. JSDQ is entitled to recover damages adequate to compensate it for such infringement, but in no event less than a reasonable royalty.

INFRINGEMENT BY DEFENDANT PEPCO

INFRINGEMENT OF UNITED STATES PATENT NO. 7,286,828

53. JSDQ realleges and incorporates by reference paragraphs 1 through 23, inclusive, as though fully set forth herein.

54. Defendant Pepco directly infringes at least independent method claims 47, 56 and 68 of the '828 Patent through the use of the Accused Wireless Routing Systems.

Claim 47

55. The Accused Wireless Routing Systems, as implemented by Defendant Pepco, provide a radio communication route among a plurality of individual nodes capable of distribution arbitrarily relative to each other, said nodes being controllable independent of a central computer separate from said nodes, in accordance with the limitations of claim 47 of the '828 Patent.

56. The Accused Wireless Routing Systems, as implemented by Defendant Pepco, perform each of the limitations of claim 47 of the '828 Patent by:

- (a) establishing radio links between pairs of said nodes using radio signals transmitted from each said node and received by other said nodes without regard to the relative locations of said nodes of said pair, wherein at least some of said radio signals include associated routing messages including an actual radio parameter of said radio signals;
- (b) storing said routing messages received by each said node;
- (c) selecting a said routing message associated with a preferred said radio link using said actual radio parameter of said received radio signals;
- (d) deleting at least some of said other stored routing messages;
- (e) modifying said selected routing message;
- (f) retransmitting said modified routing message; and
- (g) assembling said preferred radio links into a radio communication route between an originating node and a destination node, said route including plural said radio links.

Claim 56

57. The Accused Wireless Routing Systems, as implemented by Defendant Pepco, provide a radio communication route among a plurality of individual nodes capable of distribution arbitrarily relative to each other, said nodes being controllable independent of a central computer separate from said nodes, in accordance with the limitations of claim 56 of the '828 Patent.

58. The Accused Wireless Routing Systems, as implemented by Defendant Pepco, perform each of the limitations of claim 56 of the '828 Patent by:

- (a) establishing radio links between pairs of said nodes using radio signals transmitted from each said node and received by other said nodes without regard to the

relative locations of said nodes of said pair, at least some of said radio signals including routing messages;

- (b) storing said routing messages received by each said node;
- (c) selecting a said routing message associated with a preferred said radio link using a parameter of said routing messages in said received radio signals;
- (d) modifying said selected routing message;
- (e) deleting at least some of said other stored routing messages;
- (f) retransmitting said modified routing message;
- (g) assembling said preferred radio links into an optimum radio communication route between an originating node and a destination node, said route including plural said radio links; and
- (h) changing said route between said originating node and said destination node only when a condition of the route changes.

Claim 68

59. The Accused Wireless Routing Systems, as implemented by Defendant Pepco, provide a wireless communication route having a plurality of individual routing nodes distributed to form a mesh of said routing nodes throughout an area covered by a wireless communication system, in accordance with the limitations of claim 68 of the '828 Patent.

60. The Accused Wireless Routing Systems, as implemented by Defendant Pepco, perform each of the limitations of claim 68 of the '828 Patent by:

- (a) establishing wireless links between pairs of said routing nodes using wireless signals transmitted from each said routing node and received by other said routing nodes

without regard to the relative locations of said routing nodes of said pair, at least some of said wireless signals including routing messages;

- (b) storing said routing messages received by each said node;
- (c) selecting a said routing message associated with a preferred said wireless link using a parameter of said received wireless signals;
- (d) modifying said selected routing message;
- (e) deleting at least some of said other stored routing messages;
- (f) retransmitting said modified routing messages; and
- (g) assembling said preferred wireless links into an optimum wireless communication route between a remote routing node and a destination routing node, said route including plural said wireless links.

61. To the extent required by law, JSDQ has complied with the provisions of 35 U.S.C. § 287.

62. Defendant Pepco's direct infringement as described above has injured and will continue to injure JSDQ as long as such infringement continues. JSDQ is entitled to recover damages adequate to compensate it for such infringement, but in no event less than a reasonable royalty.

INFRINGEMENT OF UNITED STATES REISSUE PATENT NO. RE 43,675

63. JSDQ realleges and incorporates by reference paragraphs 1 through 23, inclusive, as though fully set forth herein.

64. Upon information and belief, Defendant Pepco directly infringes at least independent method claim 15 of the '675 Patent through the use of the Accused Wireless Routing Systems in conjunction with directional radio signals.

Claim 15

65. Upon information and belief, the Accused Wireless Routing Systems, as implemented by Defendant Pepco, provide a radio communication route among individual nodes capable of distribution arbitrarily relative to each other, in accordance with the limitations of claim 15 of the '675 Patent.

66. Upon information and belief, the Accused Wireless Routing Systems, as implemented by Defendant Pepco, perform each of the limitations of claim 15 of the '675 Patent by:

- (a) establishing radio links between respective pairs of said nodes, at least one said node using a directional radio signal transmitted from said node and received directly by another said node without regard to the relative locations of said nodes;
- (b) measuring a value of a radio parameter of a said directional radio signal received by at least one said node;
- (c) transmitting from said at least one node a radio signal with an associated routing message based on at least one measured value of the radio parameter; and
- (d) assembling a radio communication route between an originating node and a destination node, said route being assembled by computers in a plurality of said nodes using routing messages received by said nodes, wherein said computers in said nodes assemble said route independently of any computer separate from said nodes in said route, and said route includes at least one route segment with a said node transmitting a directional radio signal.

67. To the extent required by law, JSDQ has complied with the provisions of 35 U.S.C. § 287.

68. Defendant Pepco's direct infringement as described above has injured and will continue to injure JSDQ as long as such infringement continues. JSDQ is entitled to recover damages adequate to compensate it for such infringement, but in no event less than a reasonable royalty.

INFRINGEMENT OF UNITED STATES PATENT REISSUE NO. RE 44,607

69. JSDQ realleges and incorporates by reference paragraphs 1 through 23, inclusive, as though fully set forth herein.

70. Upon information and belief, Defendant Pepco directly infringes at least independent method claim 3 of the '607 Patent through the use of the Accused Wireless Routing Systems in conjunction with directional radio signals.

Claim 3

71. Upon information and belief, the Accused Wireless Routing Systems, as implemented by Defendant Pepco, provide at least two radio communication routes among individual nodes capable of distribution arbitrarily relative to each other, in accordance with the limitations of claim 3 of the '607 Patent.

72. Upon information and belief, the Accused Wireless Routing Systems, as implemented by Defendant Pepco, perform each of the limitations of claim 3 of the '607 Patent by:

- (a) establishing radio links between respective pairs of said nodes using radio signals transmitted from said nodes and received by other said nodes, wherein at least some of said radio signals include routing messages;
- (b) using a directional radio signal transmitted from one said node in a directional link and received directly by the other said node in said directional link;
- (c) measuring a parameter of radio signals received by at least some of said nodes;

(d) transmitting from at least some of said nodes radio signals with associated routing messages based on said measured parameter; and

(e) assembling radio communication routes between at least two originating nodes and at least one destination node, wherein computers in a plurality of said nodes use routing messages received by said nodes to assemble said routes independently of any computer separate from said nodes in said routes and without regard to the relative locations of said nodes in a said route, both said routes including at least one said directional link.

73. To the extent required by law, JSDQ has complied with the provisions of 35 U.S.C. § 287.

74. Defendant Pepco's direct infringement as described above has injured and will continue to injure JSDQ as long as such infringement continues. JSDQ is entitled to recover damages adequate to compensate it for such infringement, but in no event less than a reasonable royalty.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff JSDQ Mesh Technologies LLC respectfully requests this Court to enter judgment against Defendant Silver Spring Networks, Inc. and Defendant Pepco Holdings, Inc. – and against each of their subsidiaries, successors, parents, affiliates, officers, directors, agents, servants, employees, and all persons in active concert or participation with them – granting the following relief:

A. The entry of judgment in favor of Plaintiff and against Defendants;

B. An award of damages against Defendants (jointly and severally) adequate to compensate Plaintiff for the infringement that has occurred, but in no event less than a

reasonable royalty as permitted by 35 U.S.C. § 284, together with prejudgment interest from the date the infringement began;

C. A finding that this case is exceptional and an award to Plaintiff of its reasonable attorneys' fees and costs as provided by 35 U.S.C. § 285;

D. A permanent injunction prohibiting further infringement of the asserted patents;
and

E. Such other relief to which Plaintiff is entitled under the law and any other and further relief that this Court or a jury may deem just and proper.

JURY DEMAND

Plaintiff demands a trial on all issues presented in this Complaint.

Dated: September 10, 2015

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