

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

**JSDQ MESH TECHNOLOGIES LLC,**

**Plaintiff,**

**v.**

**FLUIDMESH NETWORKS, LLC (f/k/a  
FLUIDMESH NETWORKS, INC.),**

**Defendant.**

**Case No.:**

**JURY TRIAL DEMANDED**

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**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff JSDQ Mesh Technologies LLC complains of Defendant Fluidmesh Networks, LLC (formerly, Fluidmesh Networks, 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 Patent No. 7,916,648, entitled “Method of Call Routing and Connection”, which issued on March 29, 2011 (the “‘648 Patent”) (a true and correct copy is attached as Exhibit B); 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 C); 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 D) (collectively, the “Patents-in-Suit”).

4. Defendant Fluidmesh Networks, LLC is a Delaware limited liability company with a listed registered agent of Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808.

5. Upon information and belief, Fluidmesh Networks, LLC was formed on March 24, 2011 as the successor in interest to Fluidmesh Networks, Inc., which was also a Delaware corporation. Fluidmesh Networks, LLC and its predecessor in interest, Fluidmesh Networks, Inc., are collectively referred to herein as “Fluidmesh”.

6. Defendant Fluidmesh claims on its website (at <http://www.fluidmesh.com/about>): “Fluidmesh was founded in 2005” with the goal to “reliably deliver fiber-like performance via unlicensed spectrum – providing connectivity for mission critical video, voice, and data” and “[r]ecently, [Fluidmesh] raised the bar – providing uncompromised performance to places where wire simply cannot go.”

7. Fluidmesh further states: “As the world’s Internet of Things develops, Fluidmesh will play a critical role by bringing broadband connectivity to sites and in environments that are today too hard or large to connect, such as high-speed moving vehicles and trains, large-scale industrial sites, distributed infrastructures and complex urban environment.”

8. Fluidmesh also states: “Fluidmesh wireless products are the enablers of outdoor and large-scale applications of the Internet of Things: smart cities, urban video-surveillance, connected vehicles and trains, and industrial automation.”

9. Defendant Fluidmesh provides wireless networking products and services to businesses throughout the United States including Delaware and this Judicial District.

10. Fluidmesh provides wireless networking products and services for several different applications including, but not limited to: Wireless Video Security; Mining; Enterprise Backhaul; Industrial Wireless and SCADA; Oil and Gas; Campus and Education; Utilities Smart Grids; On-Board WiFi on Trains; Air to Ground Communication; Smart Cities; Water; Transportation; and Government and Military.

11. Specifically, Fluidmesh provides wireless networking products and services to numerous customers. Early discovery will enable JSDQ to identify Defendant Fluidmesh's relevant customers and assess any additional infringement thereby.

#### **JURISDICTION AND VENUE**

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

13. Personal jurisdiction over Defendant 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**

14. Defendant Fluidmesh infringes the Patents-in-Suit through the manufacture, sale, offer for sale and/or use of Defendant Fluidmesh's wireless networking products, services and solutions.

15. Defendant Fluidmesh's wireless mesh networking products – including hardware (e.g., access points, antennas, etc.), software, and firmware components associated therewith – are herein referred to as the “Accused Wireless Routing Systems”. Without limiting the foregoing and upon present information and belief, JSDQ identifies the following hardware products of Fluidmesh as infringing the Patents in Suit: Fluidmesh 1100 Series; Fluidmesh 1200 Series;

Fluidmesh 1300 Series; Fluidmesh 2100 Series; Fluidmesh 2200 Series; Fluidmesh 3100 Series; Fluidmesh 3200 Series; Fluidmesh 4200 Series; Fluidmesh Ponte; and Data Offload Solutions. After adequate discovery, Plaintiff will seek leave to amend this Complaint to include additional details of infringement, if any, by other products hereafter discovered to infringe the Patents in Suit.

16. Defendant Fluidmesh directly infringes the Patents-in-Suit at least through its use, installation and/or maintenance of the Accused Wireless Routing Systems.

**INFRINGEMENT BY DEFENDANT FLUIDMESH**

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

17. JSDQ realleges and incorporates by reference paragraphs 1 through 16, inclusive, as though fully set forth herein.

18. Defendant Fluidmesh directly infringes at least independent method claims 47, 56 and 68 of the '828 Patent through the use, installation and/or maintenance of the Accused Wireless Routing Systems.

Claim 47

19. The Accused Wireless Routing Systems, as manufactured, sold, offered for sale, used, installed and/or maintained by Defendant Fluidmesh, 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.

20. The Accused Wireless Routing Systems, as manufactured, sold, offered for sale, used, installed and/or maintained by Defendant Fluidmesh, 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

21. The Accused Wireless Routing Systems, as manufactured, sold, offered for sale, used, installed and/or maintained by Defendant Fluidmesh, 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.

22. The Accused Wireless Routing Systems, as manufactured, sold, offered for sale, used, installed and/or maintained by Defendant Fluidmesh, 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

23. The Accused Wireless Routing Systems, as manufactured, sold, offered for sale, used, installed and/or maintained by Defendant Fluidmesh, 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.

24. The Accused Wireless Routing Systems, as manufactured, sold, offered for sale, used, installed and/or maintained by Defendant Fluidmesh, 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.

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

26. Defendant Fluidmesh'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.

27. In the event discovery reveals that Defendant Fluidmesh had knowledge of the '828 Patent and still engaged in indirect infringement thereof, JSDQ will seek leave to plead indirect infringement claims in addition to the direct infringement claims pled herein.

**INFRINGEMENT OF UNITED STATES PATENT NO. 7,916,648**

28. JSDQ realleges and incorporates by reference paragraphs 1 through 16, inclusive, as though fully set forth herein.

29. Upon information and belief, Defendant Fluidmesh directly infringes at least independent method claims 29 and 36 of the '648 Patent through the use, installation and/or maintenance of the Accused Wireless Routing Systems.

Claim 29

30. Upon information and belief, the Accused Wireless Routing Systems, as manufactured, sold, offered for sale, used, installed and/or maintained by Defendant Fluidmesh, provide a radio communication route among individual nodes capable of distribution arbitrarily relative to each other, in accordance with the limitations of claim 29 of the '648 Patent.

31. Upon information and belief, the Accused Wireless Routing Systems, as manufactured, sold, offered for sale, used, installed and/or maintained by Defendant Fluidmesh, perform each of the limitations of claim 29 of the '684 Patent by:

- (a) establishing radio links between pairs of said nodes using radio signals transmitted from one said node and received directly by other said nodes without regard to the relative locations of said nodes of said pair transmitting and receiving said signals;
- (b) measuring values of a radio parameter of radio signals received by a said node;
- (c) transmitting from at least two of said nodes radio signals with associated routing messages, wherein said routing message from each of said two nodes identifies a multilink route segment to another said node and includes a value of a radio parameter related to a condition of said route segment;
- (d) selecting at a said node receiving said radio signals a preferred said multi-link route segment, wherein said selection is based on the measured values of said radio parameter of



said received radio signals and the values of said radio parameter included with said routing messages in said received radio signals;

(e) transmitting from said selecting node a radio signal with a routing message identifying said selecting node and said preferred route segment; and

(f) 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 independently of any computer separate from said nodes in said route, and said route including at least one said preferred multi-link route segment.

Claim 36

32. Upon information and belief, the Accused Wireless Routing Systems, manufactured, sold, offered for sale, used, installed and/or maintained by Defendant Fluidmesh, create a radio communications route comprising multiple radio links between a plurality of pairs of nodes capable of distribution arbitrarily relative to each other, in accordance with the limitations of claim 36 of the '648 Patent.

33. Upon information and belief, the Accused Wireless Routing Systems, manufactured, sold, offered for sale, used, installed and/or maintained by Defendant Fluidmesh, perform each of the limitations of claim 36 of the '684 Patent by:

(a) receiving at a said node at least two radio signals including routing messages transmitted from other said nodes, said signals being received at said node directly from said nodes transmitting said signals without regard to the relative locations of said node receiving said signals and said nodes transmitting said signals, wherein said routing message from each said node has content (i) identifying at least one preferred multi-link route segment to another said node, (ii) including the number of said radio links in said

route segment, and (iii) including at least one value of a radio parameter of radio signals associated with said radio links in said route segment;

(b) measuring at said receiving node values of said radio parameter associated with at least some of said radio signals received by said receiving node;

(c) storing at said receiving node said measured values of said radio parameter and said routing messages associated with said measured values;

(d) selecting at a said node receiving said routing messages a preferred said route segment, wherein said selection is based on the measured values of said radio parameter of said received radio signals and the stored values of said radio parameter;

(e) transmitting from said selecting node a routing message identifying said preferred route segment; and

(f) assembling a radio communication route between an originating node and a destination node.

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

35. Defendant Fluidmesh'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.

36. In the event discovery reveals that Defendant Fluidmesh had knowledge of the '648 Patent and still engaged in indirect infringement thereof, JSDQ will seek leave to plead indirect infringement claims in addition to the direct infringement claims pled herein.

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

37. JSDQ realleges and incorporates by reference paragraphs 1 through 16, inclusive, as though fully set forth herein.

38. Defendant Fluidmesh directly infringes at least independent method claim 15 of the '675 Patent through the use, installation and/or maintenance 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, used, installed and/or maintained by Defendant Fluidmesh, 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, used, installed and/or maintained by Defendant Fluidmesh, 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. In the event discovery reveals that Defendant Fluidmesh had knowledge of the '675 Patent and still engaged in indirect infringement thereof, JSDQ will seek leave to plead indirect infringement claims in addition to the direct infringement claims pled herein.

43. Defendant Fluidmesh'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**

44. JSDQ realleges and incorporates by reference paragraphs 1 through 16, inclusive, as though fully set forth herein.

45. Defendant Fluidmesh directly infringes at least independent method claim 3 of the '607 Patent through the manufacture, sale, offer for sale, use, installation and/or maintenance of the Accused Wireless Routing Systems in conjunction with directional radio signals.

Claim 3

46. The Accused Wireless Routing Systems, as manufactured, sold, offered for sale, used, installed and/or maintained by Defendant Fluidmesh, 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.

47. The Accused Wireless Routing Systems, as manufactured, sold, offered for sale, used, installed and/or maintained by Defendant Fluidmesh, 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.

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

49. In the event discovery reveals that Defendant Fluidmesh had knowledge of the '607 Patent and still engaged in indirect infringement thereof, JSDQ will seek leave to plead indirect infringement claims in addition to the direct infringement claims pled herein.

50. Defendant Fluidmesh'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.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiff JSDQ Mesh Technologies LLC respectfully requests this Court to enter judgment against Defendant Fluidmesh Networks, LLC (f/k/a Fluidmesh Networks, Inc.) – and against each of their subsidiaries, predecessors, 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 Defendant;
- B. An award of damages against Defendant (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; and
- C. 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: March 31, 2016

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Respectfully submitted,

*/s/ George Pazuniak*

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