IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

DYNAMIC MESH NETWORKS, INC. D/B/A MESHDYNAMICS, Plaintiff, v. CISCO SYSTEMS, INC., Defendant.	Case No. Jury Trial Demanded

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Dynamic Mesh Networks, Inc. d/b/a MeshDynamics ("MeshDynamics") files this Complaint against Cisco Systems, Inc. ("Cisco" or "Defendant") for patent infringement of United States Patent Nos.: 7,420,952; 7,885,243; 7,894,385; 8,520,691; and 11,368,537 (collectively the "Patents-in-Suit" and attached hereto as Exhibits 1-5 respectively), and alleges as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 1 *et seq.* and seeking damages and injunctive relief as provided in 35 U.S.C. §§ 281 and 283-285.

THE PARTIES

2. MeshDynamics is a corporation organized under the laws of the State of California with its principal place of business situated at 3355 Benton St., Santa Clara CA 95051.

3. MeshDynamics was founded by Francis daCosta who is the lead inventor on all of

the Patents-in-Suit. Mr. daCosta is a graduate of Stanford University where he earned a Master of Science degree. He is named as an inventor on at least 20 United States patents. Mr. daCosta also founded Advanced Cybernetics Group providing robot control system software for mission critical applications. He has served as an advisor to the United States Air Force Robotics and Automation Center of Excellence.

4. In the early 2000s, Mr. daCosta and MeshDynamics focused on enabling the self-forming, tree-shaped wireless mesh networks that are ubiquitous today. That work resulted in solutions that were significantly more efficient and scalable than prior art systems.

5. For example, traditional hub-based wireless mesh networks suffered from poor scalability. As the number of nodes increased, the number of potential paths in those networks grew, making routing inefficient and unmanageable. Those networks also experienced data collision, high latency and/or congestion as the links between the nodes were difficult to optimize. Changes in network membership also required time-consuming updates to routing tables which further degraded performance.

6. The tree-shaped and hierarchically arranged wireless mesh networks contemplated by Mr. daCosta dynamically balanced the needs of the network and optimized performance for a wide variety of uses. These networks maintain readily manageable routing paths and utilize distributed decision-making about node relationships and routing selections. The result is a highly scalable and efficient system that quickly adapts networks to optimize both latency and bandwidth based on network use. The enhancements delivered by these novel networks enable the effective implementation of advanced techniques, including modern-day wireless equivalents of ethernet switching.

7. On information and belief, defendant Cisco Systems Inc. is a corporation

organized and existing under the laws of the State of Delaware with a principal place of business at 170 West Tasman Drive, San Jose, California 95134 and regular and established places of business throughout this District, including at least 2250 East President George Bush Turnpike, Richardson, Texas 75802.

8. On information and belief, Cisco may be served with process through its registered agent, Corporation Service Company d/b/a CSC – Lawyers Incorporating Service Company, located at 211 E. 7th Street, Suite 620, Austin , TX 78701.

9. Cisco is the manufacturer of a variety of hardware devices and related software, which it collectively markets and sells as an integrated solution to its customers and end users as the "Cisco Unified Wireless Network." Part of what Cisco provides includes "Mesh" Wi-Fi equipment and solutions, including Cisco's Access Points ("APs"), wireless controllers and control systems (collectively, the "Accused Products"). Such equipment, solutions and systems are described in Cisco's Wireless Mesh Access Points, Design and Deployment Guide, among other places.

10. Cisco designs, uses, and sells its APs, wireless controllers and control systems to interoperate as a unified technical solution. For example, wireless controllers are designed and used to detect and configure Cisco's APs, and Cisco's control systems are designed and used to configure and monitor one or more wireless controllers and associated APs. Cisco's customers and end-users typically deploy wireless controllers, control systems and APs as a part of a unified technical solution.

11. Cisco's AP products include at least Cisco's Catalyst 9100 Series Wireless Access Points. Other non-limiting examples include Cisco's Aironet 1500, 1600, 1700, 2600, 2700, 3500, 3600, 3700 and business series access points. Cisco's wireless controllers include at

least Cisco's Catalyst 9800 Series wireless controllers. Other non-limiting examples include Cisco's 3500, 5500, and 8500 series wireless controllers. Cisco's control systems include at least Cisco's Prime Infrastructure and Cisco DNA Center.

12. Cisco also offers design, architectural, installation, training, guidance, deployment, management, operation, licensing, consulting, and technical support services related to its customers' and end-users' deployment and use of Cisco's Mesh Wi-Fi equipment and solutions.

JURISDICTION AND VENUE

13. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the federal patent laws of the United States.

14. This Court has personal jurisdiction over Cisco because it committed and continues to commit acts of infringement in this judicial district in violation of 35 U.S.C. §§ 271(a), 271(b), and 271(c).

15. Cisco has made, used (including to support it own businesses), sold, offered for sale, imported into, developed, and tested Cisco Accused Products in this District. It has induced others to use those products by acts carried out by Cisco employees in this District and end-users have used the Cisco Accused Products in this District.

16. Cisco is subject to the Court's jurisdiction because it regularly conducts and solicits business, or otherwise engages in other persistent courses of conduct in this judicial district, and/or derives substantial revenue from the use, sale, and distribution of goods and services, including but not limited to the accused Cisco Accused Products, provided to individuals and businesses in the Eastern District of Texas.

17. Cisco maintains multiple regular and established places of business throughout

this District, including at least 2250, 2300 and 2400 East President George Bush Turnpike, Richardson, Texas 75082. Cisco has a regular and established physical presence in this District. Its facilities in Richardson can accommodate up to 5,000 employees, consist of approximately 71 acres of land, and include approximately seven buildings totaling approximately 1.7 million square feet of office space (collectively referred to herein as the "Richardson Texas Campus").

18. Cisco employs thousands of individuals within its Richardson Texas Campus. On information and belief, some of those individuals are uniquely knowledgeable concerning the use, development, marketing, importation, and/or sales of the Cisco Accused Products.

19. Cisco has purposefully availed itself of the rights and benefits of the laws of the State of Texas and this District. Cisco has previously availed itself of the courts of the Eastern District of Texas as a patentee, including through its assertion of claims of patent infringement in litigations venued in this District. It has also previously conceded that the Eastern District of Texas has personal jurisdiction over it for the purpose of litigation of patent infringement actions as an accused infringer.

20. Cisco has substantial, continuous, and systematic contacts with this State and the Eastern District of Texas such that the exercise of personal jurisdiction would not offend traditional notions of fair play and substantial justice. Jurisdiction is consistent with the principles of due process and the Texas Long Arm Statute Tex. Civ. Prac. & Rem. Code §§ 17.041, et seq.

21. Venue is proper pursuant to 28 U.S.C. §§ 1391(b), (c), (d) and/or 1400(b), at least because Cisco has committed acts of infringement in this judicial district and has regular and established places of business in this judicial district.

THE PATENTS-IN-SUIT

22. The Patents-in-Suit include United States Patent Nos. 7,420,952 ("the '952 patent"), 7,885,243 ("the '243 patent"), 7,894,385 ("the '385 patent"), 8,520,691 ("the '691 patent"), and 11,368,537 ("the '537 patent").

23. Each of the Patents-in-Suit is presumed valid under 35 U.S.C. § 282.

24. MeshDynamics owns all rights, title, and interest in each of the Patents-in-Suit including the right to recover for all past infringement.

25. MeshDynamics has not granted Cisco an approval, an authorization, or a license to any rights under any of the Patents-in-Suit.

26. The claimed inventions in the Patents-in-Suit sought to solve problems with, and improve upon, wireless networks. None are directed to the operation of generic computers.

United States Patent No. 7,420,952

27. The '952 patent, entitled "High performance wireless networks using distributed control," was duly and legally issued by the United States Patent and Trademark Office ("USPTO") on September 2, 2008 to inventors Francis daCosta and Sriram Dayanandan.

28. The '952 patent is directed to a specific technological improvement in the functioning of wireless networks, including through the implementation of distributed control. The invention presents a concrete and specific solution to technical problems associated with conventional wireless networks, such as inefficient bandwidth allocation, high latency for time-sensitive applications, and single points of failure in centralized network control architectures.

29. The claims of the '952 patent recite a specific and inventive combination of elements that improve network performance in a manner that was not routine, well-understood or conventional at the time of the '952 patent's inventions. Unlike generic network optimization

techniques, the claimed invention enables Access Point (AP) nodes to independently and dynamically adjust relationships with other nodes in response to latency and throughput requirements. This decentralized execution ensures that the network can self-configure and adapt to changing conditions without requiring costly or impractical centralized management.

30. The ’952 patent’s solution represents a technological advancement over prior art that enhances both network redundancy and scalability. The claims implement distributed algorithms to autonomously determine routing paths, eliminating the need for micromanagement by a centralized access server. The result is a network that self-optimizes for both low-latency and high-throughput applications, balancing performance trade-offs dynamically.

31. The claims specify specific, particularized, unconventional, technical solutions, including, for example, by using algorithms that: (1) adjust routing relationships based on dynamically set latency/throughput constraints; (2) enable self-configuring AP nodes that do not require manual site surveys or pre-installation planning; (3) prevent single points of failure by distributing intelligence among the AP nodes; and (4) implement real-time load balancing through cost-of-connectivity adjustments to ensure optimal data flow and avoid congestion.

32. The ’952 patent claims present specific, non-conventional and non-routine technical advancements implementing distributed intelligence in wireless networks in a way that enhances reliability, efficiency, and adaptability.

United States Patent No. 7,885,243

33. The ’243 patent, entitled “High performance wireless networks using distributed control” was duly and legally issued by the USPTO on February 8, 2011 to inventors Francis daCosta and Sriram Dayanandan.

34. Like the ’952 patent, the claims of the ’243 patent address non-conventional and

non-routine technical advancements implementing distributed intelligence in wireless networks in a way that enhances reliability, efficiency, and adaptability.

United States Patent No. 7,894,385

35. The ’385 patent, entitled “Mobility extensions for wireless multiple radio mesh,” was duly and legally issued by the USPTO on February 22, 2011 to inventors Francis daCosta and Sriram Dayanandan.

36. The claimed inventions of the ’385 patent overcame shortcomings in conventional wireless networking techniques, including the inefficiency of single-radio backhaul networks in handling dynamic mobility scenarios and the inability of conventional wireless mesh networks to effectively transition mobile nodes between parent nodes without excessive latency and performance degradation.

37. The ’385 patent represents a technological advancement over prior art by implementing an intelligent scanning and sampling process that allows for seamless parent node transitions. The invention enhances mobility in wireless mesh networks by ensuring minimal interference, reducing latency, and optimizing throughput for mobile nodes.

38. The claims of the ’385 patent recite a specific and inventive combination of elements that improve wireless mesh network performance in a manner that was not routine, well-understood or conventional at the time. Unlike generic mobility solutions, the claimed invention enables each mobile mesh node to dynamically adjust its routing based on real-time sampling and scanning of parent nodes while avoiding packet loss and maintaining network performance.

39. The claims of the ’385 patent specify particularized, non-conventional technical means for achieving improved mobility, including for example: (1) implementing dedicated

scanning radios that operate on distinct channels to detect optimal parent nodes without disrupting ongoing communications; (2) utilizing relay radios that operate independently on separate uplink and downlink channels to minimize contention and optimize network throughput; (3) coordinating packet buffering and controlled sampling intervals to prevent network degradation during parent node selection; and (4) enabling improved handoff of mobile mesh nodes between parent nodes.

40. The ’385 patent claims present specific technical, non-conventional and non-routine advancements implementing distributed intelligence in wireless networks in a way that enhances mobility, efficiency, and adaptability.

United States Patent No. 8,520,691

41. The ’691 patent, entitled “Persistent Mesh for isolated mobile and temporal networking,” was duly and legally issued by the USPTO on August 27, 2013 to inventors Francis daCosta and Sriram Dayanandan.

42. The ’691 patent is directed to a specific technological improvement in the functioning of wireless mesh networks, particularly through the implementation of a persistent, structured mesh architecture that enables adaptive reconfiguration of network topology when nodes become isolated. The invention of the ’691 patent presents a concrete solution to technical problems associated with conventional wireless networks, such as lack of resilience in wireless networks.

43. The ’691 patent's solution represents a technological advancement over prior art by introducing a structured, persistent mesh networking architecture that enhances network resilience, supports dynamic reconfiguration, and provides distributed network services, such as Dynamic Host Configuration Protocol (“DHCP”), even in isolated conditions. The claims of the

’691 patent recite a specific and inventive combination of elements that improve wireless mesh network performance in a manner that was not routine, well-understood or conventional at the time.

44. The claims of the ’691 patent specify particularized, non-conventional technical means for achieving this outcome, including, for example, by using structured topology management that: (1) dynamically assigns root node status when no external connection is available; (2) enables isolated nodes to provide distributed network services such as DHCP; (3) supports adaptive reattachment to the main network upon reconnection; (4) employs distinct uplink and downlink channels to minimize interference and improve communication efficiency.

45. The ’691 patent claims present specific technical, non-conventional and non-routine advancements implementing distributed intelligence in wireless networks in a way that enhances mobility, efficiency, and adaptability.

United States Patent No. 11,368,537

46. The ’537 patent, entitled “High performance wireless network,” was duly and legally issued by the USPTO on June 21, 2022 to inventors Francis daCosta and Sriram Dayanandan.

47. The ’537 patent is directed to a specific technological improvement that enhances network scalability, redundancy, and performance.

48. The claims of the ’537 patent recite a specific and inventive combination of elements that operate together in an unconventional manner to improve wireless mesh network functionality that was not routine, well-understood or conventional at the time. Unlike traditional and generic networking approaches that rely on static routing or centralized control, the claimed invention allows mesh access point (MAP) nodes to autonomously select an optimal

parent node based on predefined selection criteria, such as latency, throughput, and signal strength. This decentralized, adaptive execution ensures robust network performance without the need for constant manual reconfiguration or reliance on a single point of failure.

49. The ’537 patent claims present specific technical, non-conventional and non-routine advancements implementing distributed intelligence in wireless networks in a way that enhances mobility, efficiency, and adaptability.

Pre-Suit Communications

50. MeshDynamics met (multiple times) with Cisco in or around 2009 to discuss a potential partnership for wireless mesh networking technology. Those discussions included senior Cisco decision makers, including Cisco’s then-Senior Director and CTO. At least some of those discussions also included two of Cisco’s venture capital representatives.

51. During the course of the discussions, MeshDynamics disclosed at least one presentation with a detailed description of its technology and specific identification of its key intellectual property, including the ’952 patent, and then-pending patent applications, which matured into several of the Patents-in-Suit. For example, the presentation included discussion and identification of Application No.: 12/154,155, which was published in 2009 and issued in 2011 as the ’243 patent, and Application No.: 11/818,889, which issued in 2011 as the ’385 patent.

52. The discussions between the parties included the applicability of the then-patented (and patent-pending) technology to Cisco, its business, and its products including then-existing product lines. The parties discussed how the patented technology was fundamental and essential to Cisco’s emerging mesh product lines.

53. The implementation details discussed have become integral components in

Cisco's mesh Wi-Fi devices and solutions.

54. On or about June 22, 2022, Mr. Francis daCosta sent a letter ("the 2022 Notice Letter") to Mr. Charles H. Robbins by FedEx and e-mail in his capacity as Cisco's CEO, placing Cisco on actual notice of its infringement of all Patents-in-Suit in relation to at least Cisco's Mesh Wi-Fi equipment/solutions and the deployment, management, and enablement of its customers' infringing mesh Wi-Fi networks.

55. On information and belief, Cisco and Mr. Robbins received the 2022 Notice Letter on or about June 22, 2022.

56. On information and belief, at all times from June 22, 2022, to the filing of this Complaint, Mr. Robbins has been a duly appointed officer of Cisco, holding the office of CEO.

57. Neither Cisco nor Mr. Robbins ever responded to the 2022 Notice Letter.

58. Despite Cisco's full knowledge of MeshDynamics' patents and their applicability to the Cisco Accused Products, Cisco has never taken a license.

CLAIMS FOR RELIEF

Count I – Infringement of United States Patent No. 7,420,952

59. MeshDynamics repeats, realleges, and incorporates by reference, as if fully set forth here, the allegations of the preceding paragraphs above.

60. Cisco (or those acting on its behalf) has made, used, offered for sale, sold, and/or imported products, including at least the Cisco Accused Products, that infringe (either literally or under the doctrine of equivalents) at least claim 1 of the '952 patent in violation of 35 U.S.C. § 271(a). A comparison of claim 1 of the '952 patent to representative Cisco Accused Products is attached as Exhibit 6, the contents of which MeshDynamics incorporates by reference, as if fully set forth here.

61. With knowledge of the ’952 patent, Cisco has also indirectly infringed, and continues to indirectly infringe, claims of the ’952 patent by actively inducing the direct infringement by third parties such as its customers and/or other end-users of the Cisco Accused Products under 35 U.S.C. § 271(b).

62. Since at least 2019, Cisco knowingly encouraged, and continues to encourage, its customers and/or other end-users to directly infringe one or more claims of the ’952 patent, including by Cisco’s actions that include, without limitation, instructing and encouraging its customers and/or other end-users to use the Cisco Accused Products in an infringing manner through the offering, publishing, distribution, and propagation of, user guides, advertisements, blog posts, live events, promotional materials, and Technical Assistance Center technical support services.[1]

63. Cisco also induces direct infringement by its sales and advertisement of “Cisco Services” which assist its customers and/or other end users to “plan, deploy, manage, and support” the Cisco Accused Products.

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[1] *See, e.g.*, https://www.cisco.com/c/dam/en/us/td/docs/wireless/controller/9800/17-1/deployment-guide/c9800-mesh-rel-17-1.pdf; ttps://www.cisco.com/c/en/us/td/docs/wireless/controller/6-0/configuration/guide/Controller60CG.pdf; https://www.cisco.com/c/en/us/td/docs/wireless/controller/8-9/config-guide/b_cg89.pdf; https://www.cisco.com/c/en/us/td/docs/wireless/technology/mesh/8-0/design/guide/mesh80.html; https://www.cisco.com/c/en/us/td/docs/wireless/controller/technotes/8-8/b_mesh_88.html; https://www.cisco.com/c/en/us/td/docs/wireless/controller/8-5/Enterprise-Mobility-8-5-Design-Guide/Enterprise_Mobility_8-5_Deployment_Guide.pdf; https://www.cisco.com/site/us/en/products/networking/wireless/access-points/catalyst-9100-series/index.html; https://community.cisco.com/t5/wireless/cisco-aironet-1530-series-outdoor-access-point/td-p/3016219; https://www.ciscolive.com/c/dam/r/ciscolive/global-event/docs/2024/pdf/BRKEWN-2306.pdf; https://www.cisco.com/c/en/us/products/collateral/wireless/catalyst-9100ax-access-points/nb-06-cat9136-access-point-ds-cte-en.html.

64. Cisco also instructs and continues to instruct customers and/or other end-users to use Cisco Accused Products including, without limitation, through Cisco's website, which provides access to, and support for, using Cisco Accused Products.[2]

65. On information and belief, at least since Cisco's first knowledge of the '952 patent, Cisco understood that the acts Cisco induced its customers and/or other end-users to take are actions that constitute patent infringement and that Cisco's encouraging acts resulted in direct infringement of one or more claims of the '952 patent by those customers and/or other end-users performing each step of one or more methods recited in those claims including at least claim 1.

66. On information and belief, Cisco's customers and/or other end-users directly infringe one or more claims of the '952 patent through their use of the Cisco Accused Products in accordance with Cisco's instruction and encouragement. Upon information and belief, Cisco knew that those acts would constitute infringement and acted with the intent to encourage such infringement. Alternatively, Cisco was willfully blind to that fact because of deliberately avoiding learning of the infringement despite knowing that there is a high probability that the use by its customers and/or other end-users would constitute direct infringement.

67. The components of the Cisco Accused Products are specifically configured to function in accordance with the '952 patent claims and are material parts of the invention.

68. In addition, as of the service of this Complaint, Cisco knows of the '952 patent, the alleged acts of direct infringement, and Cisco's role in encouraging those acts of infringement. Its continuation of the above-referenced acts of inducement violates 35 U.S.C. § 271(b).

69. Cisco has violated and continues to violate 35 U.S.C. § 271(c) because: (1) its

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[2] *See id.*

customers and/or other end-users directly infringe at least claim 1 of the ’952 patent by using Cisco Accused Products to meet each limitation of claim 1 as demonstrated in Exhibit 6; (2) at least as early as 2019 Cisco knew that the combination of the components of Cisco Accused Products, which are designed and configured to interoperate as integrated networks, were both patented and infringed one or more claims of the ’952 patent, including claim 1 of the ’952 patent; (3) the components of Cisco Accused Products are specifically configured to function in accordance with the ’952 patent’s claims and are material parts of the invention.

70. In violation of 35 U.S.C. § 271(c), Cisco’s contributory infringement includes offering to sell or selling within the United States, or importing into the United States, components of the patented invention, and/or a material or apparatus for use in practicing at least claim 1 of the ’952 patent, constituting a material part of the invention. Cisco knows and has known the same to be especially made or especially adapted for use in an infringement of the ’952 patent, and such components are not a staple article or commodity of commerce suitable for substantial non-infringing use. For example, on information and belief, Cisco Accused Products are not staple articles and are not a commodity of commerce suitable for substantial non-infringing use, at least because the Cisco Accused Products are components of integrated networks, the interoperation of which infringes at least claim 1 of the ’952 patent. The Cisco Accused Products are especially made or especially adapted for use in an infringement of the ’952 patent, because they are designed to use a wireless mesh network in a manner claimed by the ’952 patent, and are not capable of substantial non-infringing use.

71. In addition, as of the service of this Complaint, Cisco knows of the ’952 patent, the alleged acts of direct infringement, Cisco’s role in selling, offering to sell, or importing the components that are material parts of the patented invention, and that those components were

specially made for or adapted for use in an infringing manner. Its continuation of the above-referenced acts of sale, offering for sale, or importation also violate 35 U.S.C. § 271(c).

72. MeshDynamics (and any predecessors and/or licensees) complied with 35 U.S.C. § 287 during the relevant time period because those entities did not make, offer for sale, sell or import into the United States any products that practice the ’952 patent during the relevant time period or were not otherwise required to mark. To the extent that any products are found to have practiced the ’952 patent, MeshDynamics complied with § 287 by marking its products using the Internet and affixing the patent number to instructions, guides and warranties that were provided with products sold at the point-of-sale.

73. Cisco’s past and ongoing direct infringement and indirect infringement was and is intentional, deliberate, willful, and malicious.

74. MeshDynamics has been damaged by Cisco’s direct and indirect infringement and is suffering, and will continue, to suffer irreparable harm and damages as a result of that infringement.

Count II – Infringement of United States Patent No. 7,885,243

75. MeshDynamics repeats, realleges, and incorporates by reference, as if fully set forth here, the allegations of the preceding paragraphs above.

76. Cisco (or those acting on its behalf) has made, used, offered for sale, sold, and/or imported products, included at least the Cisco Accused Products that infringe (either literally or under the doctrine of equivalents) one or more claims of the ’243 patent in violation of 35 U.S.C. § 271(a), including claim 12. A comparison of claim 12 of the ’243 patent to representative Cisco Accused Products is attached as Exhibit 7, the contents of which MeshDynamics incorporates by reference, as if fully set forth here.

77. Cisco has also indirectly infringed claims of the ’243 patent by actively inducing the direct infringement by third parties such as its customers and/or other end-users of the Cisco Accused Products under 35 U.S.C. § 271(b).

78. Since at least 2019, Cisco knowingly encouraged its customers and/or other end-users to directly infringe one or more claims of the ’243 patent, including by Cisco’s actions that include, without limitation, instructing and encouraging its customers and/or other end-users to use the Cisco Accused Products in an infringing manner through the offering, publishing, distribution, and propagation of, user guides, advertisements, blog posts, live events, promotional materials, and Technical Assistance Center technical support services.[3]

79. Cisco also induces direct infringement by its sales and advertisement of “Cisco Services” which assist its customers and/or other end users to “plan, deploy, manage, and support” the Cisco Accused Products.

80. Cisco also instructed its customers and/or other end-users to use Cisco Accused Products including, without limitation, through Cisco’s website, which provides access to, and support for, using Cisco Accused Products.[4]

81. On information and belief, at least since Cisco’s first knowledge of the ’243 patent, Cisco understood that the acts Cisco induced its customers and/or other end-users to take were actions that constituted patent infringement and that Cisco’s encouraging acts resulted in direct infringement of one or more claims of the ’243 patent by those customers’ and/or other end-users’ making and/or using of the wireless mesh networks recited in those claims, including at least claim 12.

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[3] *See id*.

[4] *See id*.

82. On information and belief, Cisco's customers and/or other end-users directly infringed one or more claims of the '243 patent through their making and/or use of the Cisco Accused Products in accordance with Cisco's instruction and encouragement. Upon information and belief, Cisco knew that those acts would constitute infringement and acted with the intent to encourage such infringement. Alternatively, Cisco was willfully blind to that fact because deliberately avoiding learning of the infringement despite knowing that there is a high probability that the use by its customers and other end-users would constitute direct infringement.

83. The components of Cisco Accused Products were and are specifically configured to function in accordance with the '243 patent claims and are material parts of the invention.

84. In addition, as of the service of this Complaint, Cisco knows of the '243 patent, the alleged acts of direct infringement, and Cisco's role in encouraging those acts of infringement. Its continuation of the above-referenced acts of inducement violates 35 U.S.C. § 271(b).

85. Cisco has violated 35 U.S.C. § 271(c) because: (1) its customers and/or other end-users directly infringed at least claim 12 of the '243 patent by making and using Cisco Accused Products to meet each limitation of claim 12 as demonstrated in Exhibit 7; (2) at least as early as 2019 Cisco knew that the combination of the components of Cisco Accused Products, which are designed and configured to interoperate as integrated networks, were both patented and infringed one or more claims of the '243 patent, including claim 12 of the '243 patent; (3) the components of Cisco Accused Products were and are specifically configured to function in accordance with the '243 patent's claims, are material parts of the invention

86. In violation of 35 U.S.C. § 271(c), Cisco's contributory infringement included

offering to sell or selling within the United States, or importing into the United States, components of the patented invention, and/or a material or apparatus for use in practicing at least claim 12 of the ’243 patent, constituting a material part of the invention. Cisco knows and has known the same to be especially made or especially adapted for use in an infringement of the ’243 patent, and such components are not a staple article or commodity of commerce suitable for substantial non-infringing use. For example, on information and belief, Cisco Accused Products are not staple articles and are not a commodity of commerce suitable for substantial non-infringing use, at least because the Cisco Accused Products are components of integrated networks, the interoperation of which infringes at least claim 12 of the ’243 patent. The Cisco Accused Products were and are especially made or especially adapted for use in an infringement of the ’243 patent, because they are designed to form a wireless mesh network in a manner claimed by the ’243 patent, and are not capable of substantial non-infringing use.

87. In addition, as of the service of this Complaint, Cisco knows of the ’243 patent, the alleged acts of direct infringement, Cisco’s role in selling, offering to sell, or importing the components that are material parts of the patented invention, and that those components were specially made for or adapted for use in an infringing manner. Its continuation of the above-referenced acts of sale, offering for sale, or importation also violate 35 U.S.C. § 271(c)

88. MeshDynamics (and any predecessors and/or licensees) complied with 35 U.S.C. § 287 during the relevant time period because those entities did not make, offer for sale, sell or import into the United States any products that practice the ’243 patent during the relevant time period or were not otherwise required to mark. To the extent that any products are found to have practiced the ’243 patent, MeshDynamics complied with § 287 by marking its products using the Internet and affixing the patent number to instructions, guides and warranties that were provided

with products sold at the point-of-sale.

89. Cisco's direct infringement and indirect infringement was and is intentional, deliberate, willful, and malicious.

90. MeshDynamics has been damaged by Cisco's direct and indirect infringement and has suffered, and continues to suffer, irreparable harm and damages as a result of that infringement.

Count III – Infringement of United States Patent No. 7,894,385

91. MeshDynamics repeats, realleges, and incorporates by reference, as if fully set forth here, the allegations of the preceding paragraphs above.

92. Cisco (or those acting on its behalf) has made, used, offered for sale, sold, and/or imported products, including at least the Cisco Accused Products, that infringe (either literally or under the doctrine of equivalents) one or more claims of the '385 patent in violation of 35 U.S.C. § 271(a), including claim 2. A comparison of claim 2 of the '385 patent to representative Cisco Accused Products is attached as Exhibit 8, the contents of which MeshDynamics incorporates by reference, as if fully set forth here.

93. Cisco has also indirectly infringed, and continues to indirectly infringe, claims of the '385 patent by actively inducing the direct infringement by third parties such as its customers and/or other end-users of the Cisco Accused Products under 35 U.S.C. § 271(b).

94. Since at least 2019, Cisco knowingly encouraged, and continues to encourage, its customers and/or other end-users to directly infringe one or more claims of the '385 patent, including by Cisco's actions that include, without limitation, instructing and encouraging its customers and/or other end-users to use the Cisco Accused Products in an infringing manner through the offering, publishing, distribution, and propagation of, user guides, advertisements,

blog posts, live events, promotional materials, and Technical Assistance Center technical support services.[5]

95. Cisco also induces the direct infringement by its sales and advertisement of "Cisco Services" which assist its customers and/or other end users to "plan, deploy, manage, and support" the Cisco Accused Products.

96. Cisco also instructs and continues to instruct customers and/or other end-users to use Cisco Accused Products including, without limitation, through Cisco's website, which provides access to, and support for, using Cisco Accused Products.[6]

97. On information and belief, at least since Cisco's first knowledge of the '385 patent, Cisco understood that the acts Cisco induced its customers and/or other end-users to take are actions that constitute patent infringement and that Cisco's encouraging acts resulted in direct infringement of one or more claims of the '385 patent by those customers and/or other end-users making and using the mesh networks recited in those claims including at least claim 2.

98. Cisco's customers and/or other end-users directly infringe one or more claims of the '385 patent through their use of the Cisco Accused Products in accordance with Cisco's instruction and encouragement. Upon information and belief, Cisco knew that those acts would constitute infringement and acted with the intent to encourage such infringement. Alternatively, Cisco was willfully blind to that fact because of deliberately avoiding learning of the infringement despite knowing that there is a high probability that the use by its customers and/or other end-users would constitute direct infringement.

99. The components of Cisco Accused Products are specifically configured to

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[5] *See id.*

[6] *See id.*

function in accordance with the ’385 patent claims and are material parts of the invention.

100. In addition, as of the service of this Complaint, Cisco knows of the ’385 patent, the alleged acts of direct infringement, and Cisco’s role in those acts of infringement. Its continuation of the above-referenced acts of active inducement also violates 35 U.S.C. § 271(b).

101. Cisco has violated and continues to violate 35 U.S.C. § 271(c) because: (1) its customers and end-users directly infringe at least claim 2 of the ’385 patent by making and using Cisco Accused Products to meet each limitation of claim 2 as demonstrated in Exhibit 8; (2) at least as early as 2019 Cisco knew that the combination of the components of Cisco Accused Products, which are designed and configured to interoperate as integrated networks, were both patented and infringed one or more claims of the ’385 patent, including claim 2 of the ’385 patent; (3) the components of Cisco Accused Products are specifically configured to function in accordance with the ’385 patent’s claims and are material parts of the invention.

102. In violation of 35 U.S.C. § 271(c), Cisco’s contributory infringement includes offering to sell or selling within the United States, or importing into the United States, components of the patented invention of, and/or a material or apparatus for use in practicing at least claim 2 of the ’385 patent, constituting a material part of the invention. Cisco knows and has known the same to be especially made or especially adapted for use in an infringement of the ’385 patent, and such components are not a staple article or commodity of commerce suitable for substantial non-infringing use. For example, on information and belief, Cisco Accused Products are not staple articles and are not a commodity of commerce suitable for substantial non-infringing use, at least because the Cisco Accused Products are components of integrated networks, the interoperation of which infringes at least claim 2 of the ’385 patent. The Cisco Accused Products are especially made or especially adapted for use in an infringement of the

’385 patent, because they comprise the mesh networks claimed by the ’385 patent, and are not capable of substantial non-infringing use.

103. In addition, as of the service of this Complaint, Cisco knows of the ’385 patent, the alleged acts of direct infringement, Cisco’s role in selling, offering to sell, or importing the components that are material parts of the patented invention, and that those components were specially made for or adapted for use in an infringing manner. Its continuation of the above-referenced acts of sale, offering for sale, or importation also violate 35 U.S.C. § 271(c).

104. MeshDynamics (and any predecessors and/or licensees) complied with 35 U.S.C. § 287 during the relevant time period because those entities did not make, offer for sale, sell or import into the United States any products that practice the ’385 patent during the relevant time period or were not otherwise required to mark. To the extent that any products are found to have practiced the ’385 patent, MeshDynamics complied with § 287 by marking its products using the Internet and affixing the patent number to instructions, guides and warranties that were provided with products sold at the point-of-sale.

105. Cisco’s past and ongoing direct infringement and indirect infringement was and is intentional, deliberate, willful, and malicious.

106. MeshDynamics has been damaged by Cisco’s direct and indirect infringement and is suffering, and will continue to suffer, irreparable harm and damages as a result of that infringement. MeshDynamics will suffer further irreparable injury, for which it has no adequate remedy at law, unless and until Cisco is enjoined from infringing the claims of the ’385 patent.

Count IV – Infringement of United States Patent No. 8,520,691

107. MeshDynamics repeats, realleges, and incorporates by reference, as if fully set forth here, the allegations of the preceding paragraphs above.

108. Cisco (or those acting on its behalf) has made, used, offered for sale, sold, and/or imported products, including at least the Cisco Accused Products, that infringe (either literally or under the doctrine of equivalents) one or more claims of the ’691 patent in violation of 35 U.S.C. § 271(a), including claim 1. A comparison of claim 1 of the ’691 patent to representative Cisco Accused Products is attached as Exhibit 9, the contents of which MeshDynamics incorporates by reference, as if fully set forth here.

109. Cisco has also indirectly infringed, and continues to indirectly infringe, claims of the ’691 patent by actively inducing the direct infringement by third parties such as its customers and/or other end-users of the Cisco Accused Products under 35 U.S.C. § 271(b).

110. Since at least 2022, Cisco knowingly encouraged, and continues to encourage, its customers and/or other end-users to directly infringe one or more claims of the ’691 patent, including by Cisco’s actions that include, without limitation, instructing and encouraging its customers and/or other end-users to use the Cisco Accused Products in an infringing manner through the offering, publishing, distribution, and propagation of, user guides, advertisements, blog posts, live events, promotional materials, and Technical Assistance Center technical support services.[7]

111. Cisco also induces the direct infringement by its sales and advertisement of “Cisco Services” which assist its customers and/or other end users to “plan, deploy, manage, and support” the Cisco Accused Products.

112. Cisco also instructs and continues to instruct customers and/or other end-users to use Cisco Accused Products including, without limitation, through Cisco’s website, which

[7] *See id.*

provides access to, and support for, using Cisco Accused Products.[8]

113. On information and belief, at least since Cisco's first knowledge of the '691 patent, Cisco understood that the acts Cisco induced its customers and/or other end-users to take are actions that constitute patent infringement and that Cisco's encouraging acts resulted in direct infringement of one or more claims of the '691 patent by those customers and/or other end-users making and using the structured mesh networks recited in those claims including at least claim 1.

114. Cisco's customers and/or other end-users directly infringe one or more claims of the '691 patent through their use of the Cisco Accused Products in accordance with Cisco's instruction and encouragement. Upon information and belief, Cisco knew that those acts would constitute infringement and acted with the intent to encourage such infringement. Alternatively, Cisco was willfully blind to that fact because deliberately avoiding learning of the infringement despite knowing that there is a high probability that the use by its customers and/or other end-users would constitute direct infringement.

115. The components of Cisco Accused Products are specifically configured to function in accordance with the '691 patent claims and are material parts of the invention.

116. In addition, as of the service of this Complaint, Cisco knows of the '691 patent, the alleged acts of direct infringement, and Cisco's role in those acts of infringement. Its continuation of the above-referenced acts of active inducement also violates 35 U.S.C. § 271(b).

117. Cisco has violated and continues to violate 35 U.S.C. § 271(c) because: (1) its customers and/or other end-users directly infringe at least claim 1 of the '691 patent by making and using Cisco Accused Products to meet each limitation of claim 1 as demonstrated in Exhibit 9; (2) at least as early as 2022 Cisco knew that the combination of the components of Cisco

[8] *See id.*

Accused Products, which are designed and configured to interoperate as integrated networks, were both patented and infringed one or more claims of the ’691 patent, including claim 1 of the ’691 Patent; (3) the components of Cisco Accused Products are specifically configured to function in accordance with the ’691 patent’s claims and are material parts of the invention.

118. In violation of 35 U.S.C. § 271(c), Cisco’s contributory infringement includes offering to sell or selling within the United States, or importing into the United States, components of the patented invention, and/or a material or apparatus for use in practicing at least claim 1 of the ’691 patent, constituting a material part of the invention. Cisco knows and has known the same to be especially made or especially adapted for use in an infringement of the ’691 patent, and such components are not a staple article or commodity of commerce suitable for substantial non-infringing use. For example, on information and belief, Cisco Accused Products are not staple articles and are not a commodity of commerce suitable for substantial non-infringing use, at least because the Cisco Accused Products are components of integrated networks, the interoperation of which infringes at least claim 1 of the ’691 patent. The Cisco Accused Products are especially made or especially adapted for use in an infringement of the ’691 patent, because they comprise the mesh networks claimed by the ’691 patent, and are not capable of substantial non-infringing use.

119. In addition, as of the service of this Complaint, Cisco knows of the ’691 patent, the alleged acts of direct infringement, Cisco’s role in selling, offering to sell, or importing the components that are material parts of the patented invention, and that those components were specially made for or adapted for use in an infringing manner. Its continuation of the above-referenced acts of sale, offering for sale, or importation also violate 35 U.S.C. § 271(c).

120. MeshDynamics (and any predecessors and/or licensees) complied with 35 U.S.C.

§ 287 during the relevant time period because those entities did not make, offer for sale, sell or import into the United States any products that practice the ’691 patent during the relevant time period or were not otherwise required to mark. To the extent that any products are found to have practiced the ’691 patent, MeshDynamics complied with § 287 by marking its products using the Internet and affixing the patent number to instructions, guides and warranties that were provided with products sold at the point-of-sale.

121. Cisco’s past and ongoing direct infringement and indirect infringement was and is intentional, deliberate, willful, and malicious.

122. MeshDynamics has been damaged by Cisco’s direct and indirect infringement and is suffering, and will continue to suffer, irreparable harm and damages as a result of that infringement.

Count V – Infringement of United States Patent No. 11,368,537

123. MeshDynamics repeats, realleges, and incorporates by reference, as if fully set forth here, the allegations of the preceding paragraphs above.

124. Cisco (or those acting on its behalf) made, used, offered for sale, sold, and/or imported products, including at least the Cisco Accused Products, that infringed (either literally or under the doctrine of equivalents) one or more claims of the ’537 patent in violation of 35 U.S.C. § 271(a), including claim 1. A comparison of claim 1 of the ’537 patent to representative Cisco Accused Products is attached as Exhibit 10, the contents of which MeshDynamics incorporates by reference, as if fully set forth here.

125. Cisco also indirectly infringed claims of the ’537 patent by actively inducing the direct infringement by third parties such as its customers and/or other end-users of the Cisco Accused Products under 35 U.S.C. § 271(b).

126. Since at least 2022 until expiration of the ’537 patent, Cisco knowingly encouraged, its customers and/or other end-users to directly infringe one or more claims of the ’537 patent, including by Cisco’s actions that included, without limitation, instructing and encouraging its customers and/or other end-users to use the Cisco Accused Products in an infringing manner through the offering, publishing, distribution, and propagation of, user guides, advertisements, blog posts, live events, promotional materials, and Technical Assistance Center technical support.[9]

127. Cisco also induced the direct infringement by its sales and advertisement of “Cisco Services” which assist its customers and/or other end users to “plan, deploy, manage, and support” the Cisco Accused Products.

128. Cisco also instructed customers and/or other end-users to use Cisco Accused Products including, without limitation, through Cisco’s website, which provides access to, and support for, using Cisco Accused Products.[10]

129. On information and belief, at least since Cisco’s first knowledge of the ’537 patent, Cisco understood that the acts Cisco induced its customers and/or other end-users to take were actions that constituted patent infringement and that Cisco’s encouraging acts resulted in direct infringement of one or more claims of the ’537 patent by those customers and/or other end-users making and using the wireless mesh networks recited in those claims including at least claim 1.

130. Cisco’s customers and/or other end-users directly infringed one or more claims of the ’537 patent through their use of the Cisco Accused Products in accordance with Cisco’s

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[9] *See id*.

[10] *See id.*

instruction and encouragement. Upon information and belief, Cisco knew that those acts would constitute infringement and acted with the intent to encourage such infringement. Alternatively, Cisco was willfully blind to that fact because deliberately avoiding learning of the infringement despite knowing that there is a high probability that the use by its customers and/or other end-users would constitute direct infringement.

131. The components of Cisco Accused Products are and were specifically configured to function in accordance with the ’537 Patent claims and are material parts of the invention.

132. Cisco violated 35 U.S.C. § 271(c) because: (1) its customers and/or other end-users directly infringed at least claim 1 of the ’537 patent by making and using Cisco Accused Products to meet each limitation of claim 1 as demonstrated in Exhibit 10; (2) at least as early as 2022 Cisco knew that the combination of the components of Cisco Accused Products, which are designed and configured to interoperate as integrated networks, were both patented and infringed one or more claims of the ’537 patent, including claim 1 of the ’537 patent; (3) the components of Cisco Accused Products are and were specifically configured to function in accordance with the ’537 patent’s claims and are material parts of the invention.

133. In violation of 35 U.S.C. § 271(c), Cisco’s contributory infringement included offering to sell or selling within the United States, or importing into the United States, components of the patented invention, and/or a material or apparatus for use in practicing at least claim 1 of the ’537 patent, constituting a material part of the invention. Cisco knows and has known the same to be especially made or especially adapted for use in an infringement of the ’537 patent, and such components are not a staple article or commodity of commerce suitable for substantial non-infringing use. For example, on information and belief, Cisco Accused Products are not staple articles and are not a commodity of commerce suitable for substantial non-

infringing use, at least because the Cisco Accused Products are components of integrated networks, the interoperation of which infringes at least claim 1 of the ’537 patent. The Cisco Accused Products are and were especially made or especially adapted for use in an infringement of the ’537 patent, because they comprise the mesh networks claimed by the ’537 patent, and are and were not capable of substantial non-infringing use.

134. MeshDynamics (and any predecessors and/or licensees) complied with 35 U.S.C. § 287 during the relevant time period because those entities did not make, offer for sale, sell or import into the United States any products that practice the ’537 patent during the relevant time period or were not otherwise required to mark.

135. Cisco’s past direct infringement and indirect infringement was intentional, deliberate, willful, and malicious.

136. MeshDynamics has been damaged by Cisco’s direct and indirect infringement and suffered irreparable harm and damages as a result of that infringement.

JURY DEMANDED

137. Pursuant to Federal Rule of Civil Procedure 38(b), MeshDynamics hereby requests a trial by jury on all issues so triable.

PRAYER FOR RELIEF

MeshDynamics respectfully requests this Court to enter judgment in its favor and against Cisco as follows:

a. finding that Cisco has infringed, literally or under the doctrine of equivalents, one or more claims of the ’952, ’243, ’385, ’691, and ’537 patents under 35 U.S.C. §§ 271(a), (b), and (c);

b. requiring Cisco to pay MeshDynamics its damages (past, present and future), costs,

expenses, and pre-judgment interest for Cisco's infringement;

c. finding that Cisco's infringement has been willful and requiring Cisco to pay enhanced damages;

d. requiring Cisco to pay MeshDynamics compulsory ongoing licensing fees, as determined by the Court;

e. requiring Cisco to provide an accounting and to pay supplemental damages for infringing products released after the filing of this Complaint that are not colorably different from the Cisco Accused Products;

f. finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding MeshDynamics its reasonable attorneys' fees against Cisco;

g. permanently enjoining Cisco, its officers, agents, employees, attorneys, and all persons in active concert or participation with it, from infringing the claims of the '385 patent;

h. awarding such costs and other relief that the Court determines to be just and equitable.

Dated: August 12, 2025

Respectfully submitted,

/S/ Elizabeth Bernard

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