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24 **UNITED STATES DISTRICT COURT**
25 **NORTHERN DISTRICT OF CALIFORNIA**

26 CISCO SYSTEMS, INC.,

27 Plaintiff,

28 v.

29 DYNAMIC MESH NETWORKS, INC.
 30 D/B/A MESH DYNAMICS, MESH
 31 DYNAMICS, INC., FRANCIS DACOSTA,
 32 and SRIRAM DAYANANDAN

33 Defendants.

34 Case No. 3:25-cv-06441

35 **FIRST AMENDED COMPLAINT**
 36 **FOR DECLARATORY**
 37 **JUDGMENT OF**
 38 **NONINFRINGEMENT OF U.S.**
 39 **PATENT NOS. 7,420,952, 7,885,243,**
 40 **7,894,385, 8,477,762, 8,514,852,**
 41 **8,520,691, 9,049,000, 11,368,537**

1 Plaintiff Cisco Systems, Inc. (“Cisco”) hereby alleges for its First Amended Complaint against
2 Defendants Dynamic Mesh Networks, Inc. d/b/a MeshDynamics (“MeshDynamics”), Mesh
3 Dynamics, Inc., Francis daCosta and Sriram Dayanandan (collectively, “Defendants”) as follows:

4 **NATURE AND HISTORY OF THE ACTION**

5 1. This is an action for a declaratory judgment that Cisco does not infringe U.S. Patent
6 Nos. 7,420,952 (“the ’952 Patent”), 7,885,243 (“the ’243 Patent”), 7,894,385 (“the ’385 Patent”),
7 8,477,762 (“the ’762 Patent”), 8,514,852 (“the ’852 Patent”), 8,520,691 (“the ’691 Patent”), 9,049,000
8 (“the ’000 Patent”), 11,368,537 (“the ’537 Patent”) (collectively, the “Patents”) attached hereto as
9 Exhibits 1-8 respectively.

10 2. On May 5, 2025, MeshDynamics filed suit against Cisco accusing Cisco of infringing
11 the ’952, ’243, ’385, ’691, and ’537 Patents. *See Dynamic Mesh Networks Inc. d/b/a/ MeshDynamics*
12 *v. Cisco Systems, Inc.*, Civil Action No. 2:25-cv-00472 (E.D. Tex.) (“the 472 Litigation”), D.I. 1.

13 3. MeshDynamics defined the 472 Litigation Accused Products as “‘Mesh’ Wi-Fi
14 equipment and solutions, including Cisco’s Access Points (‘APs’), wireless controllers and control
15 systems (collectively, the ‘Accused Products’).” 472 Litigation, D.I. 1 at 3.

16 4. On June 6, 2025, MeshDynamics filed a second suit against Cisco accusing Cisco of
17 infringing the ’762, ’852, and ’000 Patents. *See Dynamic Mesh Networks Inc. d/b/a/ MeshDynamics*
18 *v. Cisco Systems, Inc.*, Civil Action No. 2:25-cv-00606 (E.D. Tex.) (“the 606 Litigation”), D.I. 1
19 (collectively with the 472 Litigation, “the EDTX Litigations”).

20 5. MeshDynamics defined the 606 Litigation Accused Products as “VoIP collaboration
21 products and solutions, including, for example, Cisco WebEx (the ‘’762 Accused Products’), and
22 Cisco networking equipment and solutions, including, for example, Cisco SD-WAN solutions and
23 equipment with Forward Error Correction (‘FEC’) (the ‘’852/’000 Accused Products’) (collectively,
24 the ‘Cisco Accused Products’).” 606 Litigation, D.I. 1 at 4.

25 6. MeshDynamics pled that it met multiple times with Cisco in or around 2009 to discuss
26 a potential partnership for wireless mesh networking technology.

1 7. MeshDynamics pled that Francis daCosta sent a letter on or about June 22, 2022 and
2 pled that letter placed Cisco on actual notice of its alleged infringement of the Patents.

3 8. MeshDynamics took the position in the EDTX Litigations that the claims of the Patents
4 are valid and infringed by Cisco.

5 9. MeshDynamics voluntarily dismissed the 472 Litigation without prejudice on July 31,
6 2025.

7 10. MeshDynamics voluntarily dismissed the 606 Litigation without prejudice on July 31,
8 2025.

9 11. Defendants' actions have created an actual, justiciable, substantial, and immediate
10 controversy between Cisco and Defendants as to whether Cisco's products and/or services infringe
11 any claims of the Patents. Moreover, MeshDynamics' dismissal of the EDTX Litigations without
12 prejudice demonstrates that it is highly likely that one or more of Defendants will again assert
13 infringement of the Patents against Cisco. In the meantime, the cloud of infringement allegations
14 hangs over Cisco, its products and/or services.

15 12. As set forth below, Cisco does not infringe any claim of the Patents. Therefore, an
16 actual, justiciable, substantial, and immediate controversy exists between the parties as to whether
17 Cisco's products and/or services infringe any claim of the Patents. A judicial declaration is necessary
18 to determine the respective rights of the parties regarding the Patents and finally and conclusively
19 resolve the underlying controversy, and Cisco respectfully seeks a judicial declaration that the Patents
20 are not infringed by any Cisco products and/or services.

21 **THE PARTIES**

22 13. Plaintiff Cisco Systems, Inc. is a Delaware corporation with its principal place of
23 business at 170 West Tasman Drive, San Jose, California 95134.

24 14. Founded in 1984, Cisco is the worldwide leader in developing, implementing, and
25 providing the technologies behind networking products and services. Cisco develops and provides a
26 broad range of networking products and services that enable seamless communication among
27

1 individuals, businesses, public institutions, government agencies, and service providers. Specifically,
2 the thousands of engineers who work at Cisco develop and provide networking hardware, software,
3 and services that utilize cutting-edge technologies to transport data, voice, and video within buildings,
4 across cities and campuses, and around the world.

5 15. Since its founding, Cisco has pioneered many of the important technologies that created
6 and enabled global interconnectivity. During the past four decades, Cisco has invested billions of
7 dollars, and the time and dedication of thousands of its engineers, in the research and development of
8 networking products and services, culminating in the development of a highly-successful interface and
9 related technologies that have driven the proliferation of Cisco's computer networking technologies
10 and the Internet. As computing technologies evolve and new networking challenges arise, Cisco has
11 continued to innovate and develop new solutions for its customers. No matter what type of network
12 environment—whether large scale Internet backbone networks, enterprise-level local area networks,
13 or networks supporting data centers and today's "cloud computing" services—Cisco's technologies
14 have transformed how people connect, communicate, and collaborate. Cisco remains at the forefront
15 of developing cutting-edge networking technologies and invests billions in ongoing research and
16 development and employed more than ten thousand engineers in California and elsewhere.

17 16. Cisco's intellectual property rights, including its patent rights, protect the valuable
18 technologies developed by Cisco. As a result of its innovations, Cisco has developed a substantial
19 portfolio of U.S. patents.

20 17. MeshDynamics is a corporation organized under the laws of the State of California.

21 18. On information and belief, MeshDynamics' principal place of business is located at
22 3355 Benton Street, Santa Clara, CA 95051.

23 19. On information and belief, MeshDynamics' registered agent is Francis daCosta, located
24 at 3355 Benton Street, Santa Clara, CA 95051.

25 20. On information and belief, MeshDynamics was founded by Francis daCosta.
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1 21. On information and belief, Francis daCosta holds himself out as the founder and chief
2 technology officer of MeshDynamics.

3 22. On information and belief, Francis daCosta resides in this district at 3355 Benton Street,
4 Santa Clara, CA 95051.

5 23. On information and belief, Mesh Dynamics, Inc. was a corporation organized under the
6 laws of the State of Delaware.

7 24. On information and belief, Mesh Dynamics, Inc. was founded by Francis daCosta.

8 25. On information and belief, Francis daCosta holds himself out as the founder and chief
9 technology officer of Mesh Dynamics, Inc.

10 26. On information and belief, the work leading to the Patents occurred in or around Santa
11 Clara, CA and/or San Jose, CA.

12 27. The face of every Patent indicates that every listed inventor of every Patent was located
13 in either Santa Clara, CA or San Jose, CA.

14 28. On information and belief, one or more of MeshDynamics, Mesh Dynamics, Inc.,
15 Francis daCosta, and/or Sriram Dayanandan individually or collectively possess all right, title and
16 interest to the Patents.

17 **JURISDICTION AND VENUE**

18 29. This action arises under the Declaratory Judgment Act, 28 U.S.C. §§ 2201-2202, under
19 the Patent Laws of the United States, 35 U.S.C. §§ 1 *et seq.*

20 30. This Court has subject matter jurisdiction over the claims alleged in this action at least
21 under 28 U.S.C. §§ 1331, 1338, 2201, and 2202, because this Court has exclusive jurisdiction over
22 declaratory judgment claims arising under the Patent Laws.

23 31. This Court has personal jurisdiction over Dynamic Mesh Networks, Inc. because it is a
24 corporation organized and existing under the laws of California, with its principal place of business
25 alleged to be at 3355 Benton Street, Santa Clara, CA 95051.

1 32. This Court has personal jurisdiction over Mesh Dynamics, Inc. because, on information
2 and belief, it conducted business in California and employed employees in California.

3 33. This Court has personal jurisdiction over Francis daCosta because, on information and
4 belief, he resides in this district.

5 34. This Court has personal jurisdiction over Sriram Dayanandan because, on information
6 and belief, he resides in this district.

7 35. This Court can provide the relief sought in this First Amended Complaint because an
8 actual case and controversy exists between the parties within the scope of this Court’s jurisdiction
9 pursuant to 28 U.S.C. § 2201, at least because MeshDynamics sued Cisco alleging patent infringement.
10 MeshDynamics served infringement contentions on Cisco accusing Cisco products and/or services of
11 infringement in the 472 Litigation. Exhibit 9 (472 Litigation Infringement Contentions). While
12 MeshDynamics dismissed the EDTX Litigations, it did so without prejudice, reserving the right to file
13 a subsequent complaint(s) against Cisco alleging infringement of the same Patents. Moreover,
14 MeshDynamics’ counsel of record in the EDTX Litigations represented that MeshDynamics would
15 later sue Cisco again.

16 36. Defendants’ actions have created an actual, justiciable, substantial, and immediate case
17 or controversy between Cisco and Defendants.

18 37. Venue in this District is proper under 28 U.S.C. §§ 1391(b) and (c) with respect to
19 Cisco’s claims against Defendants.

20 38. An actual, justiciable, substantial, and immediate controversy exists under 28 U.S.C.
21 §§ 2201 and 2202 between Cisco and Defendants as to whether the Patents are infringed.

22 **DIVISIONAL ASSIGNMENT**

23 39. For purposes of intradistrict assignment under Civil Local Rules 3-2(c) and 3-5(b), this
24 Intellectual Property Rights Action will be assigned on a district-wide basis.

PATENTS-IN-SUIT

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2 40. The '952 Patent, entitled "High performance wireless networks using distributed
3 control," issued on September 2, 2008. A true and correct copy of the '952 Patent is attached as
4 Exhibit 1.

5 41. The '243 Patent, entitled "High performance wireless networks using distributed
6 control," issued on February 8, 2011. A true and correct copy of the '243 Patent is attached as Exhibit
7 2.

8 42. The '385 Patent, entitled "Mobility extensions for wireless multiple radio mesh," issued
9 on February 22, 2011. A true and correct copy of the '385 Patent is attached as Exhibit 3.

10 43. The '762 Patent, entitled "Self-forming VoIP network," issued on July 2, 2013. A true
11 and correct copy of the '762 Patent is attached as Exhibit 4.

12 44. The '852 Patent, entitled "Real time packet transforms to avoid re-transmission," issued
13 on August 20, 2013. A true and correct copy of the '852 Patent is attached as Exhibit 5.

14 45. The '691 Patent, entitled "Persistent mesh for isolated mobile and temporal
15 networking," issued on August 27, 2013. A true and correct copy of the '691 Patent is attached as
16 Exhibit 6.

17 46. The '000 Patent, entitled "Real-time packet transforms to avoid re-transmissions,"
18 issued on June 2, 2015. A true and correct copy of the '000 Patent is attached as Exhibit 7.

19 47. The '537 Patent, entitled "High performance wireless network," issued on June 21,
20 2022. A true and correct copy of the '537 Patent is attached as Exhibit 8.

FIRST CLAIM FOR RELIEF

(Declaratory Judgment That Cisco Does Not Infringe The '952 Patent)

23 48. Cisco repeats and re-alleges each and every allegation contained in paragraphs 1
24 through 47 of this First Amended Complaint as if fully set forth herein.
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1 nodes including a first radio interface configurable to relay traffic to a parent relay node and a second
2 dual purpose radio interface configurable to both relay traffic from the child relay node and to
3 communicate with a client node that is not a relay node, and at least one of the relay nodes is configured
4 in the first configuration to relay traffic from a child relay node to a parent relay node”; [1d] “making
5 a channel selection change”; and [1e] “wherein prior to being dynamically selected, the second relay
6 node was a sibling node of the first relay node.”

7 52. Cisco is entitled to judgment declaring that it has not infringed and does not infringe the
8 ’952 Patent.

9 **SECOND CLAIM FOR RELIEF**

10 **(Declaratory Judgment That Cisco Does Not Infringe The ’243 Patent)**

11 53. Cisco repeats and re-alleges each and every allegation contained in paragraphs 1
12 through 47 of this First Amended Complaint as if fully set forth herein.

13 54. In view of the facts and allegations set forth above, there is an actual, justiciable,
14 substantial, and immediate controversy between Cisco and Defendants regarding whether Cisco
15 infringes any claim of the ’243 Patent.

16 55. Cisco does not infringe, and has not infringed, literally or under the doctrine of
17 equivalents, any claim of the ’243 Patent. For example, the ’243 Patent has four independent claims
18 (*i.e.*, claims 1, 9, 12, and 13) and MeshDynamics identified claim 12 as an exemplary allegedly
19 infringed claim in its complaint in the 472 Litigation and accused the 472 Litigation Accused Products.
20 Claim 12 is reproduced below (brackets added):

21 [12pre] A wireless mesh network comprising:

22 [12a] an access server wherein the access server sets one or more
23 functioning parameters of the wireless mesh network;

24 [12b] one or more root nodes connected to said access server and an
external network;

25 [12c] one or more AP nodes wherein each AP node is in wireless two-
26 way data communication with an associated parent node wherein said
associated parent node is selected from all available parent nodes

1 wherein an available parent node is another AP node within wireless
2 communication range of the AP node and the associated parent node is
3 an available parent node meeting one or more communication criteria
4 or the associated parent node is a root node within wireless
5 communication range;

6 [12d] wherein an AP node is in wireless communication with zero or
7 more clients; and

8 [12e] wherein an AP node includes a means for switching two-way data
9 communication from a first associated parent node to a second
10 associated parent node based on the functioning parameters of the
11 wireless mesh network and wherein an AP node contains one or more
12 datasets

13 [12f] wherein one of the datasets contained in an AP node comprises a
14 route path dataset comprising an identifier for the associated parent node
15 appended to the route path dataset for the associated parent node

16 [12g] wherein the communication criteria comprises instructions for the
17 AP node to select the associated parent node wherein an available parent
18 node is selected to become the associated parent node if the available
19 parent node is in wireless communication with a root node or if a root
20 node is contained in the available parent node's route path dataset; and

21 [12h] wherein the communication criteria further comprises instructions
22 for the AP node to associate with a single suitable parent node wherein
23 the route path dataset of the parent node is the shortest route path dataset
24 of all available parent nodes.

25 56. For example, the 472 Litigation Accused Products do not infringe at least the following
26 claim limitations of the '243 Patent: [12pre] "a wireless mesh network"; [12e] "wherein an AP node
27 includes a means for switching two-way data communication from a first associated parent node to a
28 second associated parent node based on the functioning parameters of the wireless mesh network and
29 wherein an AP node contains one or more datasets"; [12f] "wherein one of the datasets contained in
30 an AP node comprises a route path dataset comprising an identifier for the associated parent node
31 appended to the route path dataset for the associated parent node"; [12g] "wherein the communication
32 criteria comprises instructions for the AP node to select the associated parent node wherein an
33 available parent node is selected to become the associated parent node if the available parent node is
34 in wireless communication with a root node or if a root node is contained in the available parent node's
35 route path dataset"; and [12h] "wherein the communication criteria further comprises instructions for

1 the AP node to associate with a single suitable parent node wherein the route path dataset of the parent
 2 node is the shortest route path dataset of all available parent nodes.”

3 57. Cisco is entitled to judgment declaring that it has not infringed and does not infringe the
 4 ’243 Patent.

5 **THIRD CLAIM FOR RELIEF**

6 **(Declaratory Judgment That Cisco Does Not Infringe The ’385 Patent)**

7 58. Cisco repeats and re-alleges each and every allegation contained in paragraphs 1
 8 through 47 of this First Amended Complaint as if fully set forth herein.

9 59. In view of the facts and allegations set forth above, there is an actual, justiciable,
 10 substantial, and immediate controversy between Cisco and Defendants regarding whether Cisco
 11 infringes any claim of the ’385 Patent.

12 60. Cisco does not infringe, and has not infringed, literally or under the doctrine of
 13 equivalents, any claim of the ’385 Patent. For example, the ’385 Patent has three independent claims
 14 (*i.e.*, claims 1-3) and MeshDynamics identified claim 2 as an exemplary allegedly infringed claim in
 15 its complaint in the 472 Litigation and accused the 472 Litigation Accused Products. Claim 2 is
 16 reproduced below (brackets added):

17 [2pre] A mesh network comprising:

18 [2a] a plurality of mesh nodes; wherein

19 [2b] at least one mesh node of the mesh network is configured to scan a
 20 Radio Frequency (RF) environment using a dedicated scanning radio to
 21 determine a new potential parent mesh node for connecting with said at
 22 least one mesh node; wherein

22 [2c] said at least one mesh node includes, in addition to the scanning
 23 radio, at least two relay radios in each mesh element and wherein said
 24 scanning radio and said at least two relay radios operate on different
 25 non-interfering channels;

24 [2d] wherein while said at least one mesh node samples potential new
 25 parent nodes, packets to be sent to said at least one mesh node from its
 26 current parent node are buffered by the current parent node, and packets
 27 to be sent from said at least one mesh node to its current parent are
 28 buffered by said at least one mesh node;

1 [2e] wherein sampling times are coordinated among multiple mesh
2 nodes having a common current parent node whereby the common
3 current parent node sends tokens to each of its children in a round-robin
4 manner.

5 61. For example, the 472 Litigation Accused Products do not infringe at least the following
6 claim limitations of the '385 Patent: [2pre] "a mesh network"; [2b] "at least one mesh node of the
7 mesh network is configured to scan a Radio Frequency (RF) environment using a dedicated scanning
8 radio to determine a new potential parent mesh node for connecting with said at least one mesh node;"
9 [2c] "said at least one mesh node includes, in addition to the scanning radio, at least two relay radios
10 in each mesh element and wherein said scanning radio and said at least two relay radios operate on
11 different non-interfering channels"; [2d] "wherein while said at least one mesh node samples potential
12 new parent nodes, packets to be sent to said at least one mesh node from its current parent node are
13 buffered by the current parent node, and packets to be sent from said at least one mesh node to its
14 current parent are buffered by said at least one mesh node"; and [2e] "wherein sampling times are
15 coordinated among multiple mesh nodes having a common current parent node whereby the common
16 current parent node sends tokens to each of its children in a round-robin manner."

17 62. Cisco is entitled to judgment declaring that it has not infringed and does not infringe the
18 '385 Patent.

19 **FOURTH CLAIM FOR RELIEF**

20 **(Declaratory Judgment That Cisco Does Not Infringe The '762 Patent)**

21 63. Cisco repeats and re-alleges each and every allegation contained in paragraphs 1
22 through 47 of this First Amended Complaint as if fully set forth herein.

23 64. In view of the facts and allegations set forth above, there is an actual, justiciable,
24 substantial, and immediate controversy between Cisco and Defendants regarding whether Cisco
25 infringes any claim of the '762 Patent.

26 65. Cisco does not infringe, and has not infringed, literally or under the doctrine of
27 equivalents, any claim of the '762 Patent. For example, the '762 Patent has three independent claims
28 (*i.e.*, claims 1, 10 and 15) and MeshDynamics identified claim 1 as an exemplary allegedly infringed

1 claim in its complaint in the 606 Litigation and accused the 606 Litigation Accused Products. Claim
2 1 is reproduced below (brackets added):

3 [1pre] A VoIP-capable network comprising:

4 [1a] one or more VoIP client devices;

5 [1b] two or more VoIP nodes forming an isolated cluster wherein the
6 two or more VoIP nodes in the isolated cluster are in communication
with one another;

7 [1c] wherein each of the VoIP client devices communicates with at least
8 one VoIP node;

9 [1d] wherein each of the VoIP nodes further comprises a local SIP
10 registry built by exchanging SIP information with the remaining VoIP
nodes in the isolated cluster; and

11 [1e] wherein a first VoIP client device in communication with a first
12 VoIP node establishes a communication with a second VoIP device in
communication with a second VoIP node using the local SIP registries
of the first VoIP node and the second VoIP node.

13 66. For example, the 606 Litigation Accused Products do not infringe at least the following
14 claim limitations of the '762 Patent: [1b] "two or more VoIP nodes forming an isolated cluster wherein
15 the two or more VoIP nodes in the isolated cluster are in communication with one another"; [1d]
16 "wherein each of the VoIP nodes further comprises a local SIP registry built by exchanging SIP
17 information with the remaining VoIP nodes in the isolated cluster"; and [1e] "wherein a first VoIP
18 client device in communication with a first VoIP node establishes a communication with a second
19 VoIP device in communication with a second VoIP node using the local SIP registries of the first VoIP
20 node and the second VoIP node."

21 67. Cisco is entitled to judgment declaring that it has not infringed and does not infringe the
22 '762 Patent.

23 **FIFTH CLAIM FOR RELIEF**

24 **(Declaratory Judgment That Cisco Does Not Infringe The '852 Patent)**

25 68. Cisco repeats and re-alleges each and every allegation contained in paragraphs 1
26 through 47 of this First Amended Complaint as if fully set forth herein.

1 69. In view of the facts and allegations set forth above, there is an actual, justiciable,
2 substantial, and immediate controversy between Cisco and Defendants regarding whether Cisco
3 infringes any claim of the '852 Patent.

4 70. Cisco does not infringe, and has not infringed, literally or under the doctrine of
5 equivalents, any claim of the '852 Patent. For example, the '852 Patent has three independent claims
6 (*i.e.*, claims 1, 8 and 14) and MeshDynamics identified claim 1 as an exemplary allegedly infringed
7 claim in its complaint in the 606 Litigation and accused the 606 Litigation Accused Products. Claim
8 1 is reproduced below (brackets added):

9 [1pre] A method for transmitting a standard format network packet
10 containing real time information, comprising the steps of:

11 [1a] modifying said packet by adding redundant information to the
12 packet;

13 [1b] modifying at least one packet header to add a position offset
14 reference number that points to redundant information;

15 [1c] revising all checksums within the packet as modified to agree with
16 the packet contents as modified;

17 [1d] transmitting the packet through a network; modifying the packet,
18 including modifying all checksums, to return the packet's format to that
19 of the standard packet format;

20 [1e] if the modified packet, having been transmitted through a network,
21 is determined to have a checksum mismatch as received, modifying the
22 packet by retrieving the redundant information pointed to by said
23 position offset reference number and replacing a portion of the packet
24 with said redundant information; and

25 [1f] revising all checksums within the packet as modified to agree with
26 the contents of the modified packet.

27 71. For example, the 606 Litigation Accused Products do not infringe at least the following
28 claim limitations of the '852 Patent: [1a] “modifying said packet by adding redundant information to
the packet”; [1b] “modifying at least one packet header to add a position offset reference number that
points to redundant information”; and [1e] “if the modified packet, having been transmitted through a
network, is determined to have a checksum mismatch as received, modifying the packet by retrieving

1 the redundant information pointed to by said position offset reference number and replacing a portion
2 of the packet with said redundant information.”

3 72. Cisco is entitled to judgment declaring that it has not infringed and does not infringe the
4 '852 Patent.

5 **SIXTH CLAIM FOR RELIEF**

6 **(Declaratory Judgment That Cisco Does Not Infringe The '691 Patent)**

7 73. Cisco repeats and re-alleges each and every allegation contained in paragraphs 1
8 through 47 of this First Amended Complaint as if fully set forth herein.

9 74. In view of the facts and allegations set forth above, there is an actual, justiciable,
10 substantial, and immediate controversy between Cisco and Defendants regarding whether Cisco
11 infringes any claim of the '691 Patent.

12 75. Cisco does not infringe, and has not infringed, literally or under the doctrine of
13 equivalents, any claim of the '691 Patent. For example, the '691 Patent has three independent claims
14 (*i.e.*, claims 1, 20 and 35) and MeshDynamics identified claim 1 as an exemplary allegedly infringed
15 claim in its complaint in the 472 Litigation and accused the 472 Litigation Accused Products. Claim
16 1 is reproduced below (brackets added):

17 [1pre] A structured mesh network capable of isolated operation,
18 comprising:

19 [1a] at least two structured mesh nodes;

20 [1b] wherein each structured mesh node comprises at least a
connectivity logic;

21 [1c] an uplink radio operating on an uplink frequency and a downlink
22 radio operating on a distinct downlink frequency;

23 [1d] wherein the connectivity logic determines whether each structured
24 mesh node connects with an external network or another node using its
uplink radio and client devices or other mesh nodes connect to each
node using each node's downlink radio;

25 [1e] wherein the structured mesh network functions in two
26 configurations selected depending on whether a connection to an
external network is present;

1 [1f] in the first connected configuration the structured mesh network
2 includes at least one structured mesh node's uplink radio comprising a
3 connection to an external network; and in the second isolated
4 configuration none of the structured mesh nodes' uplink radio comprises
5 a connection to an external network, and one of the structured mesh
6 nodes acts as an isolated network root of the isolated configuration and
7 all remaining nodes connect to the isolated network root node as isolated
8 root children nodes forming a tree configuration;

9 [1g] wherein clients of nodes of the structured network in a second
10 isolated configuration retain full connectivity within the structured
11 network during the isolated configuration and wherein said client
12 connectivity is uninterrupted during any transition from the isolated
13 configuration to the first connected configuration; wherein distinct
14 downlink frequencies are used by nodes for communication with one or
15 more nodes lower on the tree configuration.

16 76. For example, the 472 Litigation Accused Products do not infringe at least the following
17 claim limitations of the '691 Patent: [1pre] "A structured mesh network capable of isolated operation";
18 [1c] "an uplink radio operating on an uplink frequency and a downlink radio operating on a distinct
19 downlink frequency"; [1d] "wherein the connectivity logic determines whether each structured mesh
20 node connects with an external network or another node using its uplink radio and client devices or
21 other mesh nodes connect to each node using each node's downlink radio"; [1f] "in the first connected
22 configuration the structured mesh network includes at least one structured mesh node's uplink radio
23 comprising a connection to an external network; and in the second isolated configuration none of the
24 structured mesh nodes' uplink radio comprises a connection to an external network, and one of the
25 structured mesh nodes acts as an isolated network root of the isolated configuration and all remaining
26 nodes connect to the isolated network root node as isolated root children nodes forming a tree
27 configuration"; and [1g] "wherein clients of nodes of the structured network in a second isolated
28 configuration retain full connectivity within the structured network during the isolated configuration
and wherein said client connectivity is uninterrupted during any transition from the isolated
configuration to the first connected configuration; wherein distinct downlink frequencies are used by
nodes for communication with one or more nodes lower on the tree configuration".

77. Cisco is entitled to judgment declaring that it has not infringed and does not infringe the
'691 Patent.

SEVENTH CLAIM FOR RELIEF**(Declaratory Judgment That Cisco Does Not Infringe The '000 Patent)**

78. Cisco repeats and re-alleges each and every allegation contained in paragraphs 1 through 47 of this First Amended Complaint as if fully set forth herein.

79. In view of the facts and allegations set forth above, there is an actual, justiciable, substantial, and immediate controversy between Cisco and Defendants regarding whether Cisco infringes any claim of the '000 Patent.

80. Cisco does not infringe, and has not infringed, literally or under the doctrine of equivalents, any claim of the '000 Patent. For example, the '000 Patent has three independent claims (*i.e.*, claims 1, 8 and 14) and MeshDynamics identified claim 1 as an exemplary allegedly infringed claim in its complaint in the 606 Litigation and accused the 606 Litigation Accused Products. Claim 1 is reproduced below (brackets added):

[1pre] A method for transmitting a standard format network packet containing real time information, comprising the steps of:

[1a] modifying said packet by adding redundant information to the packet;

[1b] modifying at least one packet header to add a position offset reference number that points to redundant information;

[1c] revising all checksums within the packet as modified to agree with the packet contents as modified;

[1d] transmitting the packet through a network, wherein transmitting further comprises the steps of

[1e] checking the modified packet during transmission;

[1f] if the modified packet is determined to have a checksum mismatch as received, modifying the packet by retrieving the redundant information pointed to by said position offset reference number and replacing a portion of the packet with said redundant information; and

[1g] calculating new checksums for packet; and

[1h] revising all checksums within the packet as modified to agree with the contents of the modified packet; and

1 [1i] upon receipt, modifying the packet to return the packet's format to
that of the standard packet format.

2 81. For example, the 606 Litigation Accused Products do not infringe at least the following
3 claim limitations of the '000 Patent: [1a] "modifying said packet by adding redundant information to
4 the packet"; [1b] "modifying at least one packet header to add a position offset reference number that
5 points to redundant information"; and [1f] "if the modified packet is determined to have a checksum
6 mismatch as received, modifying the packet by retrieving the redundant information pointed to by said
7 position offset reference number and replacing a portion of the packet with said redundant
8 information."

9 82. Cisco is entitled to judgment declaring that it has not infringed and does not infringe the
10 '000 Patent.

11 **EIGHTH CLAIM FOR RELIEF**

12 **(Declaratory Judgment That Cisco Does Not Infringe The '537 Patent)**

13 83. Cisco repeats and re-alleges each and every allegation contained in paragraphs 1
14 through 47 of this First Amended Complaint as if fully set forth herein.

15 84. In view of the facts and allegations set forth above, there is an actual, justiciable,
16 substantial, and immediate controversy between Cisco and Defendants regarding whether Cisco
17 infringes any claim of the '537 Patent.

18 85. Cisco does not infringe, and has not infringed, literally or under the doctrine of
19 equivalents, any claim of the '537 Patent. For example, the '537 Patent has three independent claims
20 (*i.e.*, claims 1, 17 and 18) and MeshDynamics identified claim 1 as an exemplary allegedly infringed
21 claim in its complaint in the 472 Litigation and accused the 472 Litigation Accused Products. Claim
22 1 is reproduced below (brackets added):

23 [1pre] A wireless mesh network comprising:

24 [1a] a plurality of Wi-Fi nodes in the wireless mesh network organized
25 in a tree shape;

26 [1b] an access server in data communication with the nodes, wherein
27 the nodes are comprised of:

1 [1c] one or more root access point (RAP) nodes having a wired
connection to an external network;

2 [1d] one or more mesh access point (MAP) nodes;

3 [1e] wherein a MAP node is in a data communication with the external
4 network through an associated RAP node;

5 [1f] wherein the MAP node is in a direct wireless data communication
6 with a single associated parent node, wherein the associated parent node
7 is either the associated RAP node, or another MAP node in a data
8 communication with the external network through its associated RAP
9 node;

10 [1g] wherein the MAP node automatically connects to the associated
11 parent node by selecting the single associated parent node from one or
12 more potential parent nodes that are within a direct wireless
13 communication range of the MAP node and establishing a parent-child
14 relationship with the associated parent node, process for the automatic
15 connection comprising:

16 [1h] selecting a parent node from the one or more potential parent nodes
17 based at least in part on one or more parent selection criteria defined by
18 the access server, wherein the parent node so selected is the associated
19 parent node; and

20 [1i] establishing a direct wireless data connection between the MAP
21 node and the associated parent node;

22 [1j] wherein the automatic connection process establishes the MAP
23 node's routing path to the external network;

24 [1k] the one or more parent selection criteria comprising:

25 [1l] a throughput value representing signal strength between two nodes;
26 and

27 [1m] a latency value representing number of hops in a routing path;

28 [1n] the MAP node comprising:

[1o] one or more identifier values representing a unique identity of the
MAP node in the wireless mesh network;

[1p] two or more radios for wirelessly communicating with another
node or a client device in the wireless mesh network.

86. For example, the 472 Litigation Accused Products do not infringe at least the following
claim limitations of the '537 Patent: [1pre] "A wireless mesh network"; [1a] "a plurality of Wi-Fi
nodes in the wireless mesh network organized in a tree shape"; [1h] "selecting a parent node from the

1 one or more potential parent nodes based at least in part on one or more parent selection criteria defined
2 by the access server, wherein the parent node so selected is the associated parent node”; [1k] “the one
3 or more parent selection criteria comprising”; [1l] “a throughput value representing signal strength
4 between two nodes”; and [1m] “a latency value representing number of hops in a routing path.”

5 87. Cisco is entitled to judgment declaring that it has not infringed and does not infringe the
6 ’537 Patent.

7 **PRAYER FOR RELIEF**

8 88. Cisco respectfully requests the following relief:

- 9 A. That the Court enter a judgment declaring that Cisco has not infringed and does not
10 infringe any claim of the ’952 Patent;
- 11 B. That the Court enter a judgment declaring that Cisco has not infringed and does not
12 infringe any claim of the ’243 Patent;
- 13 C. That the Court enter a judgment declaring that Cisco has not infringed and does not
14 infringe any claim of the ’385 Patent;
- 15 D. That the Court enter a judgment declaring that Cisco has not infringed and does not
16 infringe any claim of the ’762 Patent;
- 17 E. That the Court enter a judgment declaring that Cisco has not infringed and does not
18 infringe any claim of the ’852 Patent;
- 19 F. That the Court enter a judgment declaring that Cisco has not infringed and does not
20 infringe any claim of the ’691 Patent;
- 21 G. That the Court enter a judgment declaring that Cisco has not infringed and does not
22 infringe any claim of the ’000 Patent;
- 23 H. That the Court enter a judgment declaring that Cisco has not infringed and does not
24 infringe any claim of the ’537 Patent;
- 25 I. That the Court declare that this case is exceptional under 35 U.S.C. § 285 and award
26 Cisco its attorneys’ fees, costs, and expenses incurred in this action;
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- J. That the Court award Cisco any and all other relief to which Cisco may show itself to be entitled; and
- K. That the Court award Cisco any other relief the Court deems just, equitable, and proper.

JURY DEMAND

Cisco hereby demands a jury trial on all issues and claims so triable.

Dated: July 31, 2025

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