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

OPTIMNET LLC, *Plaintiff*, v. CISCO SYSTEMS, INC., *Defendant*.	Case No. 2:25-cv-00935 **Complaint for Patent Infringement** **JURY TRIAL DEMANDED**

COMPLAINT FOR PATENT INFRINGEMENT

This is an action for patent infringement under the Patent Laws of the United States, 35 U.S.C. § 1 et seq., in which Plaintiff OptimNet LLC ("Plaintiff" or "OptimNet") alleges as follows against Defendant Cisco Systems, Inc. ("Defendant" or "Cisco"):

INTRODUCTION

1. This complaint arises from Cisco's unlawful infringement of the following United States patents owned by OptimNet: U.S. Patent Nos. 8,116,623 ("'623 patent"), 8,638,807 ("'807 patent"), 8,780,887 ("'887 patent"), 9,313,101 ("'101 patent"), and 10,020,961 ("'961 patent"), (collectively, "Asserted Patents"). Plaintiff is the exclusive licensee of the Asserted Patents.

FACTUAL BACKGROUND

2. The Asserted Patents originate from the Electronics and Telecommunications Research Institute ("ETRI"), a non-profit, government-funded research institute in Daedeok, Korea. Among other areas of expertise, ETRI is one of the leading research institutes in the area

of digital communications. ETRI has engaged in extensive work helping to develop network communications standards, including Ethernet Ring Protection Switching ("ERPS") standards related to certain technologies at issue here.

3. Among other things, ETRI has been actively involved in the International Telecommunication Union – Telecommunication Standardization Sector ("ITU-T"). The Study Groups of ITU's Telecommunication Standardization Sector (ITU-T) assemble experts from around the world to develop international standards known as ITU-T Recommendations which act as defining elements in the global infrastructure of information and communication technologies ("ICTs"). International ICT standards avoid costly market battles over preferred technologies, and for companies from emerging markets, they create a level playing field which provides access to new markets. They are an essential aid to developing countries in building their infrastructure and encouraging economic development, and through economies of scale, they can reduce costs for all: manufacturers, operators and consumers.

4. ETRI's work with ITU-T included involvement in developing the G.8032 / Y.1344 standard, which provides standards specifications for ERPS. In view of ETRIs involvement in developing the G.8032 / Y.1344 standard, on November 19. 2009, ETRI submitted an IPR Information Statement and Licensing Declaration ("IPR Declaration"), declaring that it holds granted and/or pending applications for patents, the use of which would be required to implement the G.8032 / Y.1344 standard. *See, e.g.*, https://www.itu.int/net4/ipr/details_ps.aspx?sector=ITU-T&id=G8032/Y_1344-05 ("ETRI ERPS IPR Declaration"). As part of ETRI's IPR Declaration, ETRI committed to "grant a license to an unrestricted number of applicants on a worldwide, non-discriminatory basis and on reasonable terms and conditions to make, use and sell

implementations" of the G.8032 / Y.1344 standard. ETRI ERPS IPR Declaration at 2. Thus, ETRI: 1) assisted in the development and implementation of standards to facilitate efficient and uniform implementation of ERPS; 2) properly notified the public that it holds granted and/or pending applications for patents, the use of which would be required to implement the G.8032 / Y.1344 standard; and 3) agreed to license the subject patents on a non-discriminatory basis and on reasonable terms and conditions.

5. Despite the clear disclosure to the public, and further despite ETRI's representations that it would license the subject patents on a non-discriminatory basis and on reasonable terms and conditions, at no time did Defendant approach ETRI to discuss licensing any ETRI patents covering ERPS technology. Nor can Defendant claim ignorance of the G.8032 / Y.1344 standard, as Cisco's own documentation includes instructions for how to configure ITU-T G.8032 Ethernet Ring Protection Switching. *See, e.g.*, *Carrier Ethernet Configuration Guide, Cisco ASR 1000 Series Aggregation Services Router*, Chapter: ITU- T G.8032 Ethernet Ring Protection Switching (available at https://www.cisco.com/c/en/us/td/docs/routers/asr1000/configuration/guide/chassis/ce-xe-3s-asr1000-book/ce-g8032-ering-pro.html) (last visited August 24, 2025). Public information also indicates that Cisco itself contributed to ITU-T standards and is thus aware of the IP disclosure requirement (i.e., that contributing entities may notify the public of potential IP covering each respective standard). *See, e.g.*, Sai Gopalakrishnan (Director TME, Cisco), *Interoperability in an open networking world: Cisco's Commitment to Innovation and Collaboration* (Updated May 04, 2023) (available at https://xrdocs.io/interop-blog-2023) (last visited August 24, 2025) ("Cisco has been a leading force in this realm, actively engaging and contributing to esteemed organizations

such as the Internet Engineering Task Force (IETF), as well as other prominent industry associations such as International Telecommunication Union (ITU-T), Metro Ethernet Forum (MEF), Institute of Electrical and Electronics Engineers (IEEE), and more.”).

6. Thus Cisco: 1) knew of the G.8032 / Y.1344 standard; 2) knew of the ITU-T’s IP disclosure requirements; 3) had access to all IPR Declarations filed by any entity contributing to the standard; and 4) intentionally developed its own G.8032 / Y.1344 compliant ERPS architecture without obtaining a license to ETRI’s patents covering aspects of this technology. In short, Cisco either knew, or was willfully blind to the fact that it was infringing ETRI’s patents.

7. In addition to Cisco’s use of ETRI’s / OptimNet’s patented ERPS technology, Cisco was also aware of other ETRI / OptimNet patents, as Cisco’s own patents cite certain of the Asserted Patents. For example, the face of Cisco’s U.S. Patent No. 8,817,815 refers to the ’887 patent, which was cited by the examiner during prosecution. As another example, Cisco’s U.S. Patent No. 11,711,240 refers on its face to U.S. Patent App. Pub. No. 2015/0188728, which issued as the ’961 patent and which was cited by the examiner during prosecution.

8. In short, once again, Cisco either knew, or was willfully blind to the fact that it was infringing ETRI’s / OptimNet’s patents.

PARTIES

9. Plaintiff OptimNet is a Texas limited liability company with its principal place of business at 102 N College Ave 1038, Tyler, TX 75702.

10. On information and belief, Defendant Cisco Systems, Inc. is a corporation organized under the laws of the State of Delaware, with its 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 and 2300 East President George Bush Turnpike, Richardson, Texas 75802. Cisco has as its registered agent for service: Corporation Service Company dba CSC – Lawyers Incorporating Service Company, 211 E. 7th Street, Suite 620, Austin, Texas 78701. Cisco has been registered to do business in the state of Texas under Texas SOS file number 8243306.

JURISDICTION AND VENUE

11. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has original subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

12. This Court has personal jurisdiction over Cisco in this action because Cisco has committed acts of infringement within this District giving rise to this action, has a regular and established place of business in this District, and has established minimum contacts with this forum such that the exercise of jurisdiction over Cisco would not offend traditional notions of fair play and substantial justice. Cisco, directly and/or through subsidiaries or intermediaries, conducts its business extensively throughout Texas, by shipping, distributing, offering for sale, selling, and advertising its products and/or services in the State of Texas and the Eastern District of Texas, regularly does business or solicits business, engages in other persistent courses of conduct, and/or derives substantial revenue from products and/or services provided to individuals in the State of Texas, and commits acts of infringement of Plaintiff's patents in this District by, among other things, making, using, importing, offering to sell, and selling products and/or services that infringe the Asserted Patents, including without limitation: 1) Cisco's Optical Transport Platforms (including, for example, the Cisco NCS 1004 with OTN-XPL line cards, or the Cisco NCS 2000)

(which infringe the ’623 patent); 2) Cisco’s IOS software platforms, i.e., IOS Classic, IOS-XE, and IOS-XR, which support ITU-T G.8032 (including, for example, the Cisco ASR 900 and 1000 Series running IOS-XE) (which infringe the ’807 patent); 3) Cisco Meraki auto VPN software and Meraki virtual devices (including Meraki MX devices and Meraki Z series devices) (which infringe the ’887 patent); 4) all Cisco products implementing time-base polices that control traffic, including through Cisco’s Identity Services Engine (ISE) and Catalyst Center platforms, including versions and variations thereof since the issuance of the ‘101 patent (which infringe the ’101 patent); and 5) Cisco products and software implementing Cisco ACT multi-site functionalities, for example, Cisco Nexus 9000 series or newer switches (which infringe the ’961 patent).

13. Cisco, directly and/or through subsidiaries or intermediaries, has purposefully and voluntarily placed one or more products and/or services in the stream of commerce that practice the Asserted Patents with the intention and expectation that they will be purchased and used by consumers in the Eastern District of Texas. These products and/or services have been and continue to be purchased and used in the Eastern District of Texas.

14. Venue as to Cisco is proper in this District under 28 U.S.C. §§ 1391 and 1400(b). Cisco is registered to do business in Texas. Additionally, upon information and belief, Cisco has transacted business in this District and has committed acts of direct and indirect infringement in this District by, among other things, making, using, offering to sell, selling, and importing products that infringe the Asserted Patents. Moreover, on information and belief, Cisco has regular and established places of business in the Eastern District of Texas, including at 2250 and 2300 East President George Bush Turnpike, Richardson, Texas 75082.

15. Cisco's facilities in Richardson can accommodate up to 5,000 employees, consists of approximately 71 acres of land, and includes approximately seven buildings totaling approximately 1.7 million square feet of office space (collectively referred to herein as the "Richardson Texas Campus").

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

17. Cisco has purposefully availed itself of the rights and benefits of the laws of the State of Texas and this District. It has 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. Cisco also 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.

COUNT 1 – INFRINGEMENT OF THE '623 PATENT

18. OptimNet incorporates by reference each of the allegations in the foregoing paragraphs as if fully set forth herein and further alleges as follows:

19. On February 14, 2012 the United States Patent and Trademark Office issued U.S. Patent No. 8,116,623 (the "'623 patent"), titled "Multi-Ring Network Operating Method and System." A true and correct copy of the '623 patent is attached as Exhibit 1.

20. OptimNet is the exclusive licensee of the '623 patent with all substantial rights in the '623 patent including, without limitation, the exclusive right to sublicense, sue for infringement, and collect all past, present, and future damages.

21. The claims of the ’623 patent are patent eligible under 35 U.S.C. § 101. The claims of the ’623 patent are not directed to abstract ideas and recite technical solutions to technical problems. *See, e.g.*:

> In addition, a conventional method of implementing a multi-casting function with a signal copy function by using an electrical switch, instead of an optical switch, has problems, in that an electrical information process causes a bottleneck as data throughput increases, and a higher cost is incurred for the electrical information process that increases in proportion to the data throughput.
>
> Furthermore, in the case of using only an optical multi-casting process, problems arise, such as a collision of wavelengths, which occurs due to the use of the same wavelength for data transmission between different ring networks, or signal deterioration due to long-distance signal transmission.
>
> SUMMARY OF THE INVENTION
>
> To solve the problems with the conventional method, the present invention provides a multi-dimensional optical cross-connect (OXC) apparatus having a multi-casting function both in an optical domain and an electrical domain.
>
> In particular, the present invention provides an optical cross-connect apparatus having a multi-casting function both in the optical domain and the electrical domain, in which data that does not require regeneration or wavelength conversion is cross-connected in the optical domain, and signals that do require regeneration or wavelength conversion are cross-connected in the electrical domain, and provides an efficient multi-ring network cross-connection method using the optical cross-connect apparatus.

’623 patent, 1:51-2:11.

22. The written description of the patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the

nonconventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

23. On information and belief, Cisco makes, uses, offers for sale, sells, and/or imports certain products ("Accused Instrumentalities"), including Cisco's Optical Transport Platforms (including, for example, the Cisco NCS 1004 with OTN-XPL line cards, or the Cisco NCS 2000), that directly infringe, literally and/or under the doctrine of equivalents, at least Claim 1 of the '623 Patent. Exhibit 2 provides a description of the Accused Instrumentalities and a chart showing how they infringe claim 1 of the '623 patent, which OptimNet provides without the benefit of information about the Accused Instrumentalities obtained through discovery.

24. Cisco also knowingly and intentionally induces infringement of at least Claim 1 of the '623 Patent in violation of 35 U.S.C. § 271(b). Through at least the filing and service of this Complaint, Cisco has had knowledge of the '623 patent and the infringing nature of the Accused Instrumentalities. Despite this knowledge, Cisco instructs and encourages its customers to use the Accused Instrumentalities in an infringing manner. Defendant does so knowing and intending that their customers will commit these infringing acts. Defendant also continues to make, use, offer for sale, sell, and/or import the Accused Instrumentalities, despite their knowledge of the '623 patent, thereby specifically intending for and inducing their customers to infringe the '623 patent through the normal and customary use of the Accused Instrumentalities. On information and belief, these acts include providing information and instructions on the use of the Accused Instrumentalities; providing information, education and instructions to their customers; and indemnifying patent infringement within the United States.

25. Cisco also knowingly and intentionally contributes to the infringement of at least Claim 1 of the ’623 patent by selling, offering for sale, or importing into the United States, the Accused Instrumentalities, knowing that the Accused Instrumentalities constitute a material part of the inventions claimed in the ’623 patent, are especially made or adapted to infringe the ’623 patent, and are not staple articles or commodities of commerce suitable for non-infringing use. Cisco has been, and currently is, contributorily infringing the ’623 patent in violation of 35 U.S.C. §§ 271(c) and (f).

26. As discussed above, through at least the filing and service of this Complaint, Cisco has had knowledge of the ’623 patent and the infringing nature of the Accused Instrumentalities. Thus, as of the date of the filing of this Complaint, Defendant has also known or has been willfully blind to the fact that making, using, offering to sell, and selling the Accused Instrumentalities to their customers would constitute willful infringement of the ’623 patent.

27. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, Cisco has injured Plaintiff and is liable for infringement of the ‘623 patent pursuant to 35 U.S.C. § 271.

28. As a result of Cisco’s infringement of the ’623 patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Cisco’s infringement, but in no event less than a reasonable royalty for the use made of the invention by Cisco, together with interest and costs as fixed by the Court.

COUNT 2 – INFRINGEMENT OF THE ’807 PATENT

29. OptimNet incorporates by reference each of the allegations in the foregoing paragraphs as if fully set forth herein and further alleges as follows:

30. On January 28, 2014 the United States Patent and Trademark Office issued U.S. Patent No. 8,638,807 (the "'807 patent"), titled "Method for Managing Ethernet Ring Network of VLAN-Based Bridge." A true and correct copy of the '807 patent is attached as Exhibit 3.

31. OptimNet is the exclusive licensee of the '807 patent with all substantial rights in the '807 patent including, without limitation, the exclusive right to sublicense, sue for infringement, and collect all past, present, and future damages.

32. The claims of the '807 patent are patent eligible under 35 U.S.C. § 101. The claims of the '807 patent are not directed to abstract ideas and recite technical solutions to technical problems. *See, e.g.*:

> However, a method for configuring an Ethernet ring network topology in an Ethernet bridge capable of recognizing a VLAN in order to implement the Ethernet ring protection technology, and a management method related to registration of a VLAN ID and the updating of a VLAN entry in a VLAN filtering database, which is required to operate the ERP controller, do not exist.
>
> SUMMARY OF THE INVENTION
>
> An aspect of the present invention provides a method for managing an Ethernet ring network of a VLAN-based bridge for effectively registering a VLAN ID and updating a VLAN entry in a VLAN filtering database in order to operate Ethernet ring protection in an Ethernet bridge capable of recognizing a VLAN.

'807 patent, 2:8-23.

33. The written description of the patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the nonconventional and non-generic combination of claim limitations is patently distinct from and

improved upon what may have been considered conventional or generic in the art at the time of the invention.

34. On information and belief, Cisco makes, uses, offers for sale, sells, and/or imports certain products ("Accused Instrumentalities"), including Cisco's IOS software platforms, i.e., IOS Classic, IOS-XE, and IOS-XR, which support ITU-T G.8032 (including, for example, the Cisco ASR 900 and 1000 Series running IOS-XE) that directly infringe, literally and/or under the doctrine of equivalents, at least Claim 13 of the '807 patent. Exhibit 4 provides a description of the Accused Instrumentalities and a chart showing how they infringe claim 13 of the '807 patent, which OptimNet provides without the benefit of information about the Accused Instrumentalities obtained through discovery.

35. Cisco also knowingly and intentionally induces infringement of at least Claim 13 of the '807 Patent in violation of 35 U.S.C. § 271(b). Through at least the filing and service of this Complaint, Cisco has had knowledge of the '807 patent and the infringing nature of the Accused Instrumentalities. As discussed above, Cisco also should have had prior knowledge of the '807 patent in view of Cisco's implementation of the G.8032 standard, as well as Cisco's familiarity and contributions to other ITU-T standards, which put Cisco on notice of entities (such as ETRI) which own or owned patents covering the G.8032 standard. Despite this knowledge, Cisco instructs and encourages its customers to use the Accused Instrumentalities in an infringing manner. Defendant does so knowing and intending that their customers will commit these infringing acts. Defendant also continues to make, use, offer for sale, sell, and/or import the Accused Instrumentalities, despite their knowledge of the '807 patent, thereby specifically intending for and inducing their customers to infringe the '807 patent through the normal and

customary use of the Accused Instrumentalities. On information and belief, these acts include providing information and instructions on the use of the Accused Instrumentalities; providing information, education and instructions to their customers; and indemnifying patent infringement within the United States.

36. Cisco also knowingly and intentionally contributes to the infringement of at least Claim 13 of the ’807 patent by selling, offering for sale, or importing into the United States, the Accused Instrumentalities, knowing that the Accused Instrumentalities constitute a material part of the inventions claimed in the ’807 patent, are especially made or adapted to infringe the ’807 patent, and are not staple articles or commodities of commerce suitable for non-infringing use. Cisco has been, and currently is, contributorily infringing the ’807 patent in violation of 35 U.S.C. §§ 271(c) and (f).

37. As discussed above, through at least the filing and service of this Complaint, Cisco has had knowledge of the ’807 patent and the infringing nature of the Accused Instrumentalities. Cisco also should have had prior knowledge of the ’807 patent in view of Cisco’s implementation of the G.8032 standard, as well as Cisco’s familiarity and contributions to other ITU-T standards, which put Cisco on notice of entities (such as ETRI) which own or owned patents covering the G.8032 standard. Thus, Defendant has also known or has been willfully blind to the fact that making, using, offering to sell, and selling the Accused Instrumentalities to their customers would constitute willful infringement of the ’807 patent.

38. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, Cisco has injured Plaintiff and is liable for infringement of the ’807 Patent pursuant to 35 U.S.C. § 271.

39. As a result of Cisco's infringement of the '807 patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Cisco's infringement, but in no event less than a reasonable royalty for the use made of the invention by Cisco, together with interest and costs as fixed by the Court.

COUNT 3 – INFRINGEMENT OF THE '887 PATENT

40. OptimNet incorporates by reference each of the allegations in the foregoing paragraphs as if fully set forth herein and further alleges as follows:

41. On July 15, 2014 the United States Patent and Trademark Office issued U.S. Patent No. 8,780,887 (the "'887 patent"), titled "Method of Network-Based Communication in Virtual Network Environment." A true and correct copy of the '887 patent is attached as Exhibit 5.

42. OptimNet is the exclusive licensee of the '887 patent with all substantial rights in the '887 patent including, without limitation, the exclusive right to sublicense, sue for infringement, and collect all past, present, and future damages.

43. The claims of the '887 patent are patent eligible under 35 U.S.C. § 101. The claims of the '887 patent are not directed to abstract ideas and recite technical solutions to technical problems. *See, e.g.*:

Further, although the internet with the feature of an open architecture has to be able to provide various communication services between terminals, as well as centralized services, there are many restrictions due to an NAT/firewall incorporated in the current Internet architecture. Moreover, in the conventional internet architecture, a new IP is assigned to a network each time a terminal is connected to the Internet. It is difficult to provide mobility to the terminal since the assigned IP always changes in each network. Subsequently, there is a need for a method of supporting mobility in a virtual network environment that introduces a new ID concept.

The above information disclosed in this Background section is only for enhancement of understanding of the background of the invention and therefore it may contain information that does not form the prior art that is already known in this country to a person of ordinary skill in the art.

SUMMARY OF THE INVENTION

The present invention has been made in an effort to provide a method of network-based communication in a virtual network environment capable of direction communication based on a virtual address.

'887 patent, 3:25-47.

44. The written description of the patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the nonconventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

45. On information and belief, Cisco makes, uses, offers for sale, sells, and/or imports certain products ("Accused Instrumentalities"), including Cisco Meraki auto VPN software and Meraki virtual devices (including Meraki MX devices and Meraki Z series devices), that directly

infringe, literally and/or under the doctrine of equivalents, at least Claim 1 of the ’887 patent. Exhibit 6 provides a description of the Accused Instrumentalities and a chart showing how they infringe claim 1 of the ’887 patent, which OptimNet provides without the benefit of information about the Accused Instrumentalities obtained through discovery.

46. Cisco also knowingly and intentionally induces infringement of at least Claim 1 of the ’887 patent in violation of 35 U.S.C. § 271(b). Through at least the filing and service of this Complaint, Cisco has had knowledge of the ’887 patent and the infringing nature of the Accused Instrumentalities. As discussed above, Cisco also should have had prior knowledge of the ’887 patent because the face of Cisco’s U.S. Patent No. 8,817,815 refers to the ’887 patent, which was cited by the examiner during prosecution. Despite this knowledge, Cisco instructs and encourages its customers to use the Accused Instrumentalities in an infringing manner. Defendant does so knowing and intending that their customers will commit these infringing acts. Defendant also continues to make, use, offer for sale, sell, and/or import the Accused Instrumentalities, despite their knowledge of the ’887 patent, thereby specifically intending for and inducing their customers to infringe the ’887 patent through the normal and customary use of the Accused Instrumentalities. On information and belief, these acts include providing information and instructions on the use of the Accused Instrumentalities; providing information, education and instructions to their customers; and indemnifying patent infringement within the United States.

47. Cisco also knowingly and intentionally contributes to the infringement of at least Claim 1 of the ’887 patent by selling, offering for sale, or importing into the United States, the Accused Instrumentalities, knowing that the Accused Instrumentalities constitute a material part of the inventions claimed in the ’887 patent, are especially made or adapted to infringe the ’887

patent, and are not staple articles or commodities of commerce suitable for non-infringing use. Cisco has been, and currently is, contributorily infringing the ’887 patent in violation of 35 U.S.C. §§ 271(c) and (f).

48. As discussed above, through at least the filing and service of this Complaint, Cisco has had knowledge of the ’887 Patent and the infringing nature of the Accused Instrumentalities. Cisco also should have had prior knowledge of the ’887 patent because the face of Cisco’s U.S. Patent No. 8,817,815 refers to the ’887 patent, which was cited by the examiner during prosecution. Thus, Defendant has also known or has been willfully blind to the fact that making, using, offering to sell, and selling the Accused Instrumentalities to their customers would constitute willful infringement of the ’887 patent.

49. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, Cisco has injured Plaintiff and is liable for infringement of the ’887 patent pursuant to 35 U.S.C. § 271.

50. As a result of Cisco’s infringement of the ’887 patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Cisco’s infringement, but in no event less than a reasonable royalty for the use made of the invention by Cisco, together with interest and costs as fixed by the Court.

COUNT 4 – INFRINGEMENT OF THE ’101 PATENT

51. OptimNet incorporates by reference each of the allegations in the foregoing paragraphs as if fully set forth herein and further alleges as follows:

52. On April 12, 2016 the United States Patent and Trademark Office issued U.S. Patent No. 9,313,101 (the "'101 patent"), titled "Method of Controlling Traffic by Time-Based Policy." A true and correct copy of the '101 patent is attached as Exhibit 7.

53. OptimNet is the exclusive licensee of the '101 patent with all substantial rights in the '101 patent including, without limitation, the exclusive right to sublicense, sue for infringement, and collect all past, present, and future damages.

54. The claims of the '101 patent are patent eligible under 35 U.S.C. § 101. The claims of the '101 patent are not directed to abstract ideas and recite technical solutions to technical problems. *See, e.g.*:

Traffic generally indicates a load that is applied to a communication apparatus or a system, and in a network, traffic indicates a quantity of data that are exchanged through the network. In order to provide a smooth network service or to apply a reasonable accounting model, a service provider monitors and controls a traffic situation. In this case, a policy is set to operate a network, and when transmission of data is requested from the outside of a server through the network, a service provider controls traffic according to the set policy.

Such traffic includes a packet in which information such as a 5-tuple (source IP address, destination IP address, source port, destination port, and protocol) and a 7-tuple (source IP address, destination IP address, source port, destination port, protocol, input port number, and signature) is stored, and a general policy is set based on information such as a 7-tuple that is included in a packet of traffic. A policy that is set at a policy server is executed in a policy execution point (PEP) and controls traffic.

Conventionally, because the above policy was set using only information that is included in a packet within traffic, a condition combination for setting a policy was limited to the information, and thus there was a limitation in controlling traffic with various methods.

SUMMARY OF THE INVENTION

The present invention has been made in an effort to provide a method of controlling traffic having advantages of controlling traffic with various methods by adding a time condition to policy setting that controls traffic and suggesting a method of executing a time-based policy in each stage of a network.

An exemplary embodiment of the present invention provides a method of setting a time-based policy that controls traffic. The method includes: extracting at least one of tuple information that is included in a packet; setting a time condition; and setting a time-based traffic control policy by combining the set time condition and the at least one tuple information that is included in the extracted packet.

'101 patent, 1:22-59.

55. The written description of the patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the nonconventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

56. On information and belief, Cisco makes, uses, offers for sale, sells, and/or imports certain products ("Accused Instrumentalities"), including all Cisco products implementing time-base polices that control traffic, including through Cisco's Identity Services Engine (ISE) and Catalyst Center platforms, including versions and variations thereof since the issuance of the '101 patent, that directly infringe, literally and/or under the doctrine of equivalents, at least Claim 1 of the '101 patent. Exhibit 8 provides a description of the Accused Instrumentalities and a chart showing how they infringe claim 1 of the '101 patent, which OptimNet provides without the benefit of information about the Accused Instrumentalities obtained through discovery.

57. Cisco also knowingly and intentionally induces infringement of at least Claim 1 of the '101 patent in violation of 35 U.S.C. § 271(b). Through at least the filing and service of this Complaint, Cisco has had knowledge of the '101 Patent and the infringing nature of the Accused Instrumentalities. Despite this knowledge, Cisco instructs and encourages its customers to use the Accused Instrumentalities in an infringing manner. Defendant does so knowing and intending that their customers will commit these infringing acts. Defendant also continues to make, use, offer for sale, sell, and/or import the Accused Instrumentalities, despite their knowledge of the '101 patent, thereby specifically intending for and inducing their customers to infringe the '101 patent through the normal and customary use of the Accused Instrumentalities. On information and belief, these

acts include providing information and instructions on the use of the Accused Instrumentalities; providing information, education and instructions to their customers; and indemnifying patent infringement within the United States.

58. Cisco also knowingly and intentionally contributes to the infringement of at least Claim 1 of the ’101 patent by selling, offering for sale, or importing into the United States, the Accused Instrumentalities, knowing that the Accused Instrumentalities constitute a material part of the inventions claimed in the ’101 patent, are especially made or adapted to infringe the ’101 patent, and are not staple articles or commodities of commerce suitable for non-infringing use. Cisco has been, and currently is, contributorily infringing the ’101 patent in violation of 35 U.S.C. §§ 271(c) and (f).

59. As discussed above, through at least the filing and service of this Complaint, Cisco has had knowledge of the ’101 patent and the infringing nature of the Accused Instrumentalities. Thus, as of the date of the filing of this Complaint, Defendant has also known or has been willfully blind to the fact that making, using, offering to sell, and selling the Accused Instrumentalities to their customers would constitute willful infringement of the ’101 patent.

60. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, Cisco has injured Plaintiff and is liable for infringement of the ’101 patent pursuant to 35 U.S.C. § 271.

61. As a result of Cisco’s infringement of the ’101 patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Cisco’s infringement, but in no event less than a reasonable royalty for the use made of the invention by Cisco, together with interest and costs as fixed by the Court.

COUNT 5 – INFRINGEMENT OF THE ’961 PATENT

62. OptimNet incorporates by reference each of the allegations in the foregoing paragraphs as if fully set forth herein and further alleges as follows:

63. On July 10, 2018 the United States Patent and Trademark Office issued U.S. Patent No. 10,020,961 (the “’961 patent”), titled “Method and Apparatus for Network Virtualization.” A true and correct copy of the ’961 patent is attached as Exhibit 9.

64. OptimNet is the exclusive licensee of the ’961 patent with all substantial rights in the ’961 patent including, without limitation, the exclusive right to sublicense, sue for infringement, and collect all past, present, and future damages.

65. The claims of the ’961 patent are patent eligible under 35 U.S.C. § 101. The claims of the ’961 patent are not directed to abstract ideas and recite technical solutions to technical problems. *See, e.g.*:

Recent trends of IT (information technology) include server virtualization, VM (virtual machine)-based computing, concentration of IT resources on data center, and network virtualization. Network virtualization is a technology where a plurality of virtual networks may be created on a physical network when necessary and can be deleted. This technology may be utilized to configure a network between virtual machines. A generally used overlay-based virtual network is a L2 network that may be realized on top of a L3 network in an overlay method. In the overlay-based virtual network, tunneling may be performed that is attaching a L3 IP (internet protocol) header to a L2 Ethernet frame being transmitted between virtual machines.

Most representative overlay-based network virtualization includes a VXLAN (virtual extensible local area network) and NVGRE (network virtualization using generic routing encapsulation). In a VXLAN or NVGRE, a virtual L2 network may be created by connecting a tunnel between servers. For this purpose, a full-mesh tunnel must be set between TEPs (Tunnel End Points) being realized in a server or gateway. In order to set a full-mesh tunnel between N number of TEPs, $N \times (N-1)$ number of tunnels are needed. This restricts expandability, thereby causing a problem of restricting the size of the network (number of network nodes) where a VXLAN or NVGRE may be applied.

Specifically, the greater the N, the more complex the setting becomes, and due to the restriction on the number of tunnels that may be set in TEPs and the restriction on the number of tunnels that may be managed by one network virtualization manager, a network virtualization domain must be restricted to a certain size. For these reasons, one network virtualization domain may generally be restricted to one IDC (Internet Data Center). There is need for a virtual network existing over a plurality of IDCs located far from one another geographically, but it is not easy to provide these requirements with conventional network virtualization methods since they lack expandability.

SUMMARY

A first purpose of various embodiments of the present invention is to provide a method and apparatus capable of providing expandability in an overlay-based virtual network.

’961 patent, 1:20-62.

66. The written description of the patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the nonconventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

67. On information and belief, Cisco makes, uses, offers for sale, sells, and/or imports certain products ("Accused Instrumentalities"), including Cisco products and software implementing Cisco ACI multi-site functionalities, for example, Cisco Nexus 9000 series or newer switches, that directly infringe, literally and/or under the doctrine of equivalents, at least Claim 1 of the '961 patent. Exhibit 10 provides a description of the Accused Instrumentalities and a chart showing how they infringe claim 1 of the '961 patent, which OptimNet provides without the benefit of information about the Accused Instrumentalities obtained through discovery.

68. Cisco also knowingly and intentionally induces infringement of at least Claim 1 of the '961 patent in violation of 35 U.S.C. § 271(b). Through at least the filing and service of this Complaint, Cisco has had knowledge of the '961 patent and the infringing nature of the Accused Instrumentalities. As discussed above, Cisco also should have had prior knowledge of the '961 patent because Cisco's U.S. Patent No. 11,711,240 refers on its face to U.S. Patent App. Pub. No. 2015/0188728, which issued as the '961 patent and which was cited by the examiner during prosecution. Despite this knowledge, Cisco instructs and encourages its customers to use the Accused Instrumentalities in an infringing manner. Defendant does so knowing and intending that their customers will commit these infringing acts. Defendant also continues to make, use, offer for sale, sell, and/or import the Accused Instrumentalities, despite their knowledge of the '961 patent,

thereby specifically intending for and inducing their customers to infringe the ’961 patent through the normal and customary use of the Accused Instrumentalities. On information and belief, these acts include providing information and instructions on the use of the Accused Instrumentalities; providing information, education and instructions to their customers; and indemnifying patent infringement within the United States.

69. Cisco also knowingly and intentionally contributes to the infringement of at least Claim 1 of the ’961 patent by selling, offering for sale, or importing into the United States, the Accused Instrumentalities, knowing that the Accused Instrumentalities constitute a material part of the inventions claimed in the ’961 patent, are especially made or adapted to infringe the ’961 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use. Cisco has been, and currently is, contributorily infringing the ’961 patent in violation of 35 U.S.C. §§ 271(c) and (f).

70. As discussed above, through at least the filing and service of this Complaint, Cisco has had knowledge of the ’961 Patent and the infringing nature of the Accused Instrumentalities. Cisco also should have had prior knowledge of the ’961 patent because Cisco’s U.S. Patent No. 11,711,240 refers on its face to U.S. Patent App. Pub. No. 2015/0188728, which issued as the ’961 patent and which was cited by the examiner during prosecution. Thus, Defendant has also known or has been willfully blind to the fact that making, using, offering to sell, and selling the Accused Instrumentalities to their customers would constitute willful infringement of the ’961 patent.

71. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, Cisco has injured Plaintiff and is liable for infringement of the ’961 patent pursuant to 35 U.S.C. § 271.

72. As a result of Cisco's infringement of the '961 patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Cisco's infringement, but in no event less than a reasonable royalty for the use made of the invention by Cisco, together with interest and costs as fixed by the Court.

JURY DEMAND

73. Pursuant to Rule 38 of the Federal Rules of Civil Procedure, OptimNet requests a trial by jury of any issues so triable by right.

PRAYER FOR RELIEF

Plaintiff OptimNet respectfully requests the following relief from this Court:

A. A judgment in favor of OptimNet that that Cisco has infringed, either literally and/or under the doctrine of equivalents, the Asserted Patents, and that the Asserted Patents are valid, enforceable, and patent-eligible;

B. A judgment and order requiring Cisco to pay OptimNet compensatory damages, costs, expenses, and pre-judgment and post-judgment interest for its infringement of the Asserted Patents, as provided under 35 U.S.C. § 284;

C. Any and all injunctive and/or equitable relief to which OptimNet may be entitled including, but not limited to, ongoing royalties with respect to Cisco's infringement of the Asserted Patents;

D. A judgment and order requiring Cisco to provide an accounting and to pay supplemental damages to OptimNet, including, without limitation, pre-judgment and post-judgment interest;

E. A judgment and order finding that this case is exceptional under 35 U.S.C. § 285, and an award of OptimNet's reasonable attorney's fees and costs; and

F. Any and all other relief to which OptimNet may be entitled.

Dated: September 4, 2025

Respectfully submitted,

/s/ Dale Chang

Dale Chang
CA State Bar No. 248657
Email: dchang@raklaw.com
Kristopher Davis
CA State Bar No. 329627
Email: kdavis@raklaw.com
Bradley Hyde
CA State Bar No. 301145
Email: bhyde@raklaw.com
RUSS AUGUST & KABAT
12424 Wilshire Blvd. 12th Floor
Los Angeles, CA 90025
Telephone: 310-826-7474

Attorneys for Plaintiff OptimNet LLC