

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

EIRE OG INNOVATIONS LTD.,

Plaintiff,

v.

PALO ALTO NETWORKS, INC.,

Defendant.

Case No. 2:24-cv-227

JURY TRIAL DEMANDED

**COMPLAINT FOR PATENT INFRINGEMENT
AGAINST PALO ALTO NETWORKS, INC.**

This is an action for patent infringement arising under the Patent Laws of the United States of America, 35 U.S.C. § 1 *et seq.*, in which Plaintiff Eire Og Innovations Limited (“Plaintiff” or “Eire Og”) makes the following allegations against Defendant Palo Alto Networks, Inc. (“Defendant” or “PAN”):

INTRODUCTION

1. This complaint arises from PAN’s unlawful infringement of the following United States patents owned by Plaintiff, which relate to improvements in processing devices and systems: United States Patent Nos. 9,436,626 (“the ’626 Patent”), 9,442,870 (“the ’870 Patent”), 8,504,777 (“the ’777 Patent”), and 8,117,399 (“the ’399 Patent”) (collectively, the “Asserted Patents”).

PARTIES

2. Plaintiff Eire Og Innovations Limited is a private company limited by shares organized and existing under the laws of Ireland, with its principal place of business at The Hyde Building, Suite 23, The Park, Carrickmines, Dublin 18, Ireland. Eire Og is the sole owner by

assignment of all rights, title, and interest in the Asserted Patents, including the right to recover damages for past, present, and future infringement.

3. On information and belief, Defendant Palo Alto Networks, Inc. is a Delaware corporation with its principal place of business at 3000 Tannery Way, Santa Clara, CA 95054. PAN is registered to do business in the State of Texas and may be served through its registered agent Corporation Service Company dba CSC – Lawyers Incorporating Service Company, 211 E. 7th Street, Suite 620, Austin, Texas 78701.

JURISDICTION AND VENUE

4. 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).

5. This Court has personal jurisdiction over PAN in this action because PAN has committed acts within this District giving rise to this action and has established minimum contacts with this forum such that the exercise of jurisdiction over PAN would not offend traditional notions of fair play and substantial justice. PAN maintains several places of business within the State, including at 3901 North Dallas Parkway, Plano, TX 75093. PAN, directly and through subsidiaries or intermediaries, has committed and continues to commit acts of infringement in this District by, among other things, importing, offering to sell, and selling products that infringe the Asserted Patents. PAN is registered to do business in the State of Texas, and has appointed as their registered agent, Corporation Service Company d/b/a CSC – Lawyers Incorporating Service Company, 211 E. 7th Street, Suite 620, Austin, Texas 78701, for service of process.

6. Venue is proper in this District under 28 U.S.C. §§ 1391 and 1400(b). PAN is registered to do business in Texas, and upon information and belief, PAN 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. PAN has regular and established places of business in this District, including at 3901 North Dallas Parkway, Plano, TX 75093.

COUNT I

INFRINGEMENT OF U.S. PATENT NO. 9,436,626

7. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

8. Plaintiff owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in U.S. Patent No. 9,436,626, titled “Processor interrupt interface with interrupt partitioning and virtualization enhancements.” The ’626 Patent was duly and legally issued by the United States Patent and Trademark Office on September 6, 2016. The ’626 Patent is valid and enforceable. A true and correct copy of the ’626 Patent is attached hereto as Exhibit 1.

9. PAN makes, uses, offers for sale, sells, and/or imports certain products, including without limitation PAN’s products using Intel-based CPUs (Haswell-based architecture and newer) (including but not limited to PAN’s PA-5220, PA-5250, PA-5260, PA-5280, PA-5450 Next-Generation Firewalls) and AMD Zen-based CPUs (including but not limited to PAN’s PA-5410, PA-5420, PA-5430, PA-5440 Next-Generation Firewalls) (the “Accused Products”), that directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the ’626 Patent. Identification of the accused products will be provided in Plaintiff’s infringement contentions pursuant to the Court’s scheduling order.

10. The Accused Products satisfy all claim limitations of one or more claims of the '626 Patent. A claim chart comparing exemplary independent claim 1 of the '626 Patent to representative Accused Products is attached as Exhibits 2 and 3.

11. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, PAN has injured Plaintiff and is liable for infringement of the '626 Patent pursuant to 35 U.S.C. § 271(a).

12. PAN also knowingly and intentionally induces infringement of one or more claims of the '626 Patent in violation of 35 U.S.C. § 271(b). At least as of the filing and service of this complaint, PAN has knowledge of the '626 Patent and the infringing nature of the Accused Products through, for example, the '626 Patent claim charts served therewith. Despite this knowledge of the '626 Patent, PAN continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website and materials cited in Exhibits 2 and 3) to use the Accused Products in ways that directly infringe the '626 Patent. For example, PAN advertises the benefits of Intel Xeon processors. *See, e.g.*, Ex. 4 (https://www.brighttalk.com/resource/core/393636/next-gen-security-services-with-inline-ai-inference_845652.pdf). Further, PAN provides customers with instructions and user manuals detailing how to setup, configure, and utilize the Accused Products to utilize the infringing functionality. *See, e.g.*, Ex. 5 (<https://docs.paloaltonetworks.com/hardware/pa-5400-hardware-reference/PA-5400-series-firewall-installation>). PAN provides these instructions, user manuals, and other materials knowing and intending (or with willful blindness to the fact) that its customers and end users will commit these infringing acts. PAN also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the '626 Patent, thereby

specifically intending for and inducing its customers to infringe the '626 Patent through the customers' normal and customary use of the Accused Products.

13. PAN has also infringed, and continues to infringe, one or more claims of the '626 Patent by selling, offering for sale, or importing into the United States, the Accused Products, knowing that the Accused Products constitute a material part of the inventions claimed in the '626 Patent, are especially made or adapted to infringe the '626 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use. At least as of the filing and service of this complaint, PAN has knowledge of the '626 Patent and the infringing nature of the Accused Products through, for example, the '626 Patent claim chart served therewith. PAN has been, and currently is, contributorily infringing the '626 Patent in violation of 35 U.S.C. §§ 271(c) and/or (f). For example, the accused processor interrupt management features constitute a material part of the inventions claimed in the '626 Patent, are especially made or adapted to infringe the '626 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use, as demonstrated by the evidence in Exhibits 2 and 3.

14. On information and belief, Plaintiff (including its predecessors and any licensees) complied with 35 U.S.C. § 287 during the relevant time period because Plaintiff, any predecessor assignees to the '626 Patent, and any licensees did not make, offer for sale, or sell products that practice(d) the '626 Patent during the relevant time period or were not required to mark during the relevant time period.

15. As a result of PAN's direct infringement of the '626 Patent, Plaintiff is entitled to monetary damages (past, present, and future) in an amount adequate to compensate for PAN's infringement, but in no event less than a reasonable royalty for the use made of the invention by PAN, together with interest and costs as fixed by the Court.

16. As a result of PAN's indirect infringement of the '626 Patent, Plaintiff is entitled to monetary damages (present and future) in an amount adequate to compensate for PAN's infringement, but in no event less than a reasonable royalty for the use made of the invention by PAN, together with interest and costs as fixed by the Court, accruing as of the time PAN obtained knowledge of the '626 Patent.

COUNT II

INFRINGEMENT OF U.S. PATENT NO. 9,442,870

17. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

18. Plaintiff owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in U.S. Patent No. 9,442,870, titled "Interrupt priority management using partition-based priority blocking processor registers." The '870 Patent was duly and legally issued by the United States Patent and Trademark Office on September 13, 2016. The '870 Patent is valid and enforceable. A true and correct copy of the '870 Patent is attached hereto as Exhibit 6.

19. PAN makes, uses, offers for sale, sells, and/or imports certain products, including without limitation PAN's products using Intel-based CPUs (Haswell-based architecture and newer) (including but not limited to PAN's PA-5220, PA-5250, PA-5260, PA-5280, PA-5450 Next-Generation Firewalls) and AMD Zen-based CPUs (including but not limited to PAN's PA-5410, PA-5420, PA-5430, PA-5440 Next-Generation Firewalls) (the "Accused Products"), that directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '870 Patent. Identification of the accused products will be provided in Plaintiff's infringement contentions pursuant to the Court's scheduling order.

20. The Accused Products satisfy all claim limitations of one or more claims of the '870 Patent. A claim chart comparing exemplary independent claim 1 of the '870 Patent to representative Accused Products is attached as Exhibits 7 and 8.

21. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, PAN has injured Plaintiff and is liable for infringement of the '870 Patent pursuant to 35 U.S.C. § 271(a).

22. PAN also knowingly and intentionally induces infringement of one or more claims of the '870 Patent in violation of 35 U.S.C. § 271(b). At least as of the filing and service of this complaint, PAN has knowledge of the '870 Patent and the infringing nature of the Accused Products through, for example, the '870 Patent claim charts served therewith. Despite this knowledge of the '870 Patent, PAN continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website and materials cited in Exhibits 7 and 8) to use the Accused Products in ways that directly infringe the '870 Patent. For example, PAN advertises the benefits of Intel Xeon processors. *See, e.g.*, Ex. 4 (https://www.brighttalk.com/resource/core/393636/next-gen-security-services-with-inline-ai-inference_845652.pdf). Further, PAN provides customers with instructions and user manuals detailing how to setup, configure, and utilize the Accused Products to utilize the infringing functionality. *See, e.g.*, Ex. 5 (<https://docs.paloaltonetworks.com/hardware/pa-5400-hardware-reference/PA-5400-series-firewall-installation>). PAN provides these instructions, user manuals, and other materials knowing and intending (or with willful blindness to the fact) that its customers and end users will commit these infringing acts. PAN also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the '870 Patent, thereby

specifically intending for and inducing its customers to infringe the '870 Patent through the customers' normal and customary use of the Accused Products.

23. PAN has also infringed, and continues to infringe, one or more claims of the '870 Patent by selling, offering for sale, or importing into the United States, the Accused Products, knowing that the Accused Products constitute a material part of the inventions claimed in the '870 Patent, are especially made or adapted to infringe the '870 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use. At least as of the filing and service of this complaint, PAN has knowledge of the '870 Patent and the infringing nature of the Accused Products through, for example, the '870 Patent claim chart served therewith. PAN has been, and currently is, contributorily infringing the '870 Patent in violation of 35 U.S.C. §§ 271(c) and/or (f). For example, the accused processor interrupt management features constitute a material part of the inventions claimed in the '870 Patent, are especially made or adapted to infringe the '870 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use, as demonstrated by the evidence in Exhibits 7 and 8.

24. On information and belief, Plaintiff (including its predecessors and any licensees) complied with 35 U.S.C. § 287 during the relevant time period because Plaintiff, any predecessor assignees to the '870 Patent, and any licensees did not make, offer for sale, or sell products that practice(d) the '870 Patent during the relevant time period or were not required to mark during the relevant time period.

25. As a result of PAN's direct infringement of the '870 Patent, Plaintiff is entitled to monetary damages (past, present, and future) in an amount adequate to compensate for PAN's infringement, but in no event less than a reasonable royalty for the use made of the invention by PAN, together with interest and costs as fixed by the Court.

26. As a result of PAN's indirect infringement of the '870 Patent, Plaintiff is entitled to monetary damages (present and future) in an amount adequate to compensate for PAN's infringement, but in no event less than a reasonable royalty for the use made of the invention by PAN, together with interest and costs as fixed by the Court, accruing as of the time PAN obtained knowledge of the '870 Patent.

COUNT III

INFRINGEMENT OF U.S. PATENT NO. 8,504,777

27. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

28. Plaintiff owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in U.S. Patent No. 8,504,777, titled "Data processor for processing decorated instructions with cache bypass." The '777 Patent was duly and legally issued by the United States Patent and Trademark Office on August 6, 2013. The '777 Patent is valid and enforceable. A true and correct copy of the '777 Patent is attached hereto as Exhibit 9.

29. PAN makes, uses, offers for sale, sells, and/or imports certain products, including without limitation PAN's products using Intel-based CPUs (Skylake-based architecture and newer) (including but not limited to PAN's PA-5450 Next-Generation Firewalls) and AMD-based EPYC CPUs (including but not limited to PAN's PA-5410, PA-5420, PA-5430, PA-5440 Next-Generation Firewalls) (the "Accused Products"), that directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '777 Patent. Identification of the accused products will be provided in Plaintiff's infringement contentions pursuant to the Court's scheduling order.

30. The Accused Products satisfy all claim limitations of one or more claims of the '777 Patent. A claim chart comparing exemplary independent claim 16 of the '777 Patent to representative Accused Products is attached as Exhibits 10 and 11.

31. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, PAN has injured Plaintiff and is liable for infringement of the '777 Patent pursuant to 35 U.S.C. § 271(a).

32. PAN also knowingly and intentionally induces infringement of one or more claims of the '777 Patent in violation of 35 U.S.C. § 271(b). At least as of the filing and service of this complaint, PAN has knowledge of the '777 Patent and the infringing nature of the Accused Products through, for example, the '777 Patent claim chart served therewith. Despite this knowledge of the '777 Patent, PAN continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website and materials cited in Exhibits 10 and 11) to use the Accused Products in ways that directly infringe the '777 Patent. For example, PAN advertises the benefits of Intel Xeon processors. *See, e.g.*, Ex. 4 (https://www.brighttalk.com/resource/core/393636/next-gen-security-services-with-inline-ai-inference_845652.pdf). Further, PAN provides customers with instructions and user manuals detailing how to setup, configure, and utilize the Accused Products to utilize the infringing functionality. *See, e.g.*, Ex. 5 (<https://docs.paloaltonetworks.com/hardware/pa-5400-hardware-reference/PA-5400-series-firewall-installation>). PAN provides these instructions, user manuals, and other materials knowing and intending (or with willful blindness to the fact) that its customers and end users will commit these infringing acts. PAN also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the '777 Patent, thereby

specifically intending for and inducing its customers to infringe the '777 Patent through the customers' normal and customary use of the Accused Products.

33. PAN has also infringed, and continues to infringe, one or more claims of the '777 Patent by selling, offering for sale, or importing into the United States, the Accused Products, knowing that the Accused Products constitute a material part of the inventions claimed in the '777 Patent, are especially made or adapted to infringe the '777 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use. At least as of the filing and service of this complaint, PAN has knowledge of the '777 Patent and the infringing nature of the Accused Products through, for example, the '777 Patent claim chart served therewith. PAN has been, and currently is, contributorily infringing the '777 Patent in violation of 35 U.S.C. §§ 271(c) and/or (f). For example, the accused cache processing features constitute a material part of the inventions claimed in the '777 Patent, are especially made or adapted to infringe the '777 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use, as demonstrated by the evidence in Exhibits 10 and 11.

34. On information and belief, Plaintiff (including its predecessors and any licensees) complied with 35 U.S.C. § 287 during the relevant time period because Plaintiff, any predecessor assignees to the '777 Patent, and any licensees did not make, offer for sale, or sell products that practice(d) the '777 Patent during the relevant time period or were not required to mark during the relevant time period.

35. As a result of PAN's direct infringement of the '777 Patent, Plaintiff is entitled to monetary damages (past, present, and future) in an amount adequate to compensate for PAN's infringement, but in no event less than a reasonable royalty for the use made of the invention by PAN, together with interest and costs as fixed by the Court.

36. As a result of PAN's indirect infringement of the '777 Patent, Plaintiff is entitled to monetary damages (present and future) in an amount adequate to compensate for PAN's infringement, but in no event less than a reasonable royalty for the use made of the invention by PAN, together with interest and costs as fixed by the Court, accruing as of the time PAN obtained knowledge of the '777 Patent.

COUNT IV

INFRINGEMENT OF U.S. PATENT NO. 8,117,399

37. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

38. Plaintiff owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in U.S. Patent No. 8,117,399, titled "Processing of coherent and incoherent accesses at a uniform cache." The '399 Patent was duly and legally issued by the United States Patent and Trademark Office on February 14, 2012. The '399 Patent is valid and enforceable. A true and correct copy of the '399 Patent is attached hereto as Exhibit 12.

39. PAN makes, uses, offers for sale, sells, and/or imports certain products, including without limitation PAN's products using Intel-based CPUs (Skylake-based architecture and newer) (including but not limited to PAN's PA-5450 Next-Generation Firewalls) and AMD-based EPYC CPUs (including but not limited to PAN's PA-5410, PA-5420, PA-5430, PA-5440 Next-Generation Firewalls) (the "Accused Products"), that directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '399 Patent. Identification of the accused products will be provided in Plaintiff's infringement contentions pursuant to the Court's scheduling order.

40. The Accused Products satisfy all claim limitations of one or more claims of the '399 Patent. A claim chart comparing exemplary independent claim 14 of the '399 Patent to representative Accused Products is attached as Exhibits 13 and 14.

41. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, PAN has injured Plaintiff and is liable for infringement of the '399 Patent pursuant to 35 U.S.C. § 271(a).

42. PAN also knowingly and intentionally induces infringement of one or more claims of the '399 Patent in violation of 35 U.S.C. § 271(b). At least as of the filing and service of this complaint, PAN has knowledge of the '399 Patent and the infringing nature of the Accused Products through, for example, the '399 Patent claim chart served therewith. Despite this knowledge of the '399 Patent, PAN continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website and materials cited in Exhibits 13 and 14) to use the Accused Products in ways that directly infringe the '399 Patent. For example, PAN advertises the benefits of Intel Xeon processors. *See, e.g.*, Ex. 4 (https://www.brighttalk.com/resource/core/393636/next-gen-security-services-with-inline-ai-inference_845652.pdf). Further, PAN provides customers with instructions and user manuals detailing how to setup, configure, and utilize the Accused Products to utilize the infringing functionality. *See, e.g.*, Ex. 5 (<https://docs.paloaltonetworks.com/hardware/pa-5400-hardware-reference/PA-5400-series-firewall-installation>). PAN provides these instructions, user manuals, and other materials knowing and intending (or with willful blindness to the fact) that its customers and end users will commit these infringing acts. PAN also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the '399 Patent, thereby

specifically intending for and inducing its customers to infringe the '399 Patent through the customers' normal and customary use of the Accused Products.

43. PAN has also infringed, and continues to infringe, one or more claims of the '399 Patent by selling, offering for sale, or importing into the United States, the Accused Products, knowing that the Accused Products constitute a material part of the inventions claimed in the '399 Patent, are especially made or adapted to infringe the '399 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use. At least as of the filing and service of this complaint, PAN has knowledge of the '399 Patent and the infringing nature of the Accused Products through, for example, the '399 Patent claim chart served therewith. PAN has been, and currently is, contributorily infringing the '399 Patent in violation of 35 U.S.C. §§ 271(c) and/or (f). For example, the accused cache processing features constitute a material part of the inventions claimed in the '399 Patent, are especially made or adapted to infringe the '399 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use, as demonstrated by the evidence in Exhibits 13 and 14.

44. On information and belief, Plaintiff (including its predecessors and any licensees) complied with 35 U.S.C. § 287 during the relevant time period because Plaintiff, any predecessor assignees to the '399 Patent, and any licensees did not make, offer for sale, or sell products that practice(d) the '399 Patent during the relevant time period or were not required to mark during the relevant time period.

45. As a result of PAN's direct infringement of the '399 Patent, Plaintiff is entitled to monetary damages (past, present, and future) in an amount adequate to compensate for PAN's infringement, but in no event less than a reasonable royalty for the use made of the invention by PAN, together with interest and costs as fixed by the Court.

46. As a result of PAN's indirect infringement of the '399 Patent, Plaintiff is entitled to monetary damages (present and future) in an amount adequate to compensate for PAN's infringement, but in no event less than a reasonable royalty for the use made of the invention by PAN, together with interest and costs as fixed by the Court, accruing as of the time PAN obtained knowledge of the '399 Patent.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests that this Court enter:

- a. A judgment in favor of Plaintiff that PAN has infringed, either literally and/or under the doctrine of equivalents, the '626, '870, '777, and '399 Patents;
- b. A judgment and order requiring PAN to pay Plaintiff its damages (past, present, and future), costs, expenses, and pre-judgment and post-judgment interest for PAN's infringement of the '626, '870, '777, and '399 Patents;
- c. A judgment and order requiring PAN to pay Plaintiff compulsory ongoing licensing fees, as determined by the Court in equity.
- d. A judgment and order requiring PAN to provide an accounting and to pay supplemental damages to Plaintiff, including without limitation, pre-judgment and post-judgment interest and compensation for infringing products released after the filing of this case that are not colorably different from the accused products;
- e. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to Plaintiff its reasonable attorneys' fees against PAN; and
- f. Any and all other relief as the Court may deem appropriate and just under the circumstances.

DEMAND FOR JURY TRIAL

Plaintiff, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any issues so triable by right.

Dated: April 3, 2024

Respectfully submitted,

By: /s/ Brett E. Cooper
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