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Attorneys for Plaintiff QIANG WANG

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

QIANG WANG,

Plaintiff,

v.

PALO ALTO NETWORKS, INC., NIR
ZUK AND FENGMIN GONG,

Defendants.

Case No. 3:12-cv-05579-WHA

**AMENDED COMPLAINT
AND JURY DEMAND**

JURY TRIAL DEMANDED

1 Plaintiff Qiang Wang ("Wang"), in support of his Amended Complaint against Defendants
2 Palo Alto Networks, Inc., Nir Zuk and Fengmin Gong, alleges as follows:

3 **JURISDICTION, VENUE AND NATURE OF ACTION**

4 1. This is an action to correct inventorship of U.S. Patent No. 8,009,566 B2 ("the '566
5 patent"). The '566 patent is based on inventions first conceived by Wang and disclosed to a
6 currently named inventor of the '566 patent. Wang also asserts a claim for trade secret
7 misappropriation under the California Uniform Trade Secrets Act, Cal. Civil Code §§3426-
8 3426.11, and claims for patent infringement.

9 2. This Court has jurisdiction over this action pursuant to 28 U.S.C. §§1331, 1338,
10 1367, 2201, 2202 and 35 U.S.C. §256.

11 3. Venue is appropriate in this district under 28 U.S.C. §1391(b).

12 **THE PARTIES**

13 4. Wang is a resident of this district.

14 5. Palo Alto Networks, Inc. ("PAN") is a Delaware Corporation headquartered in
15 Santa Clara, California.

16 6. Nir Zuk ("Zuk") is a resident of this district. He is a co-founder of PAN, and
17 currently is PAN's Chief Technical Officer.

18 7. Fengmin Gong ("Gong") is a resident of this district. He is a co-founder of PAN
19 and was PAN's Chief Scientist.

20 **BACKGROUND**

21 8. Wang is an engineer with significant experience in fast search algorithm, chip
22 architecture and design, and network system and security. His academic experience includes
23 serving as Visiting Fellow and Lecturer in Telecommunications at the University of South Wales
24 in Australia and Beijing University of Posts and Telecommunications in China, respectively,
25 before 1990. His industrial experience includes leading chip and system architecture and design
26 efforts, encompassing many security functions, for companies in Silicon Valley, USA, since
27 1994. He received his Master's Degree in Electrical Engineering from Beijing University of
28

1 Posts and Telecommunications in 1986, and spent two years at Stanford University in the Ph.D.
2 program in Computer Vision and Fast Search Algorithms from 1992 to 1994.

3 9. From 2001 through 2003, Wang conceived of new firewall technologies. These
4 technologies included novel methods for content-based signature scanning (i.e., pattern
5 matching); stateful sub-port (i.e., signature-based) application recognition; heuristic analysis for
6 unknown applications; heuristic protocol anomaly; traffic (i.e., statistical) anomaly analyses;
7 automatic signature generation for unknown threats; fine-grain modular (i.e., multi-mode)
8 classification based on headers and content including using Application-ID, Content-ID and User-
9 ID; and single-pass parallel architecture for integrated securities and services, which is stream-
10 based (vs. file-based) and on a purpose-built platform for high-performance, fine-grained control,
11 easy management, low latency and costs. On November 7, 2003, Wang applied for a patent on a
12 revolutionary fast content scan technology, the foundation of these technologies, and that
13 application eventually issued as U.S. Patent No. 7,454,418 ("the '418 patent") on November 18,
14 2008. The '418 patent application was first published on October 20, 2008.

15 10. From April of 2003 to December of 2003, Wang worked full-time on a business
16 plan to commercialize his firewall technologies through a venture he named GoldShield
17 Networks, which was never incorporated.

18 11. In February of 2005, Wang entered into a joint venture with Fengmin Gong to
19 promote and commercialize Wang's inventions and business ideas. Gong was at that time Chief
20 Scientist and Director of Intrusion Detection Technologies at McAfee, Inc. ("McAfee"); he told
21 Wang that he possessed the requisite engineering management and security product delivery
22 experience, networking, and business acumen to help Wang make GoldShield Networks a
23 success. Wang invited Gong to be a co-founder of the venture, and Gong accepted that invitation.
24 Thereafter, in discussions with Wang and third parties, Gong identified himself as a "co-founder"
25 of the venture, and Wang's "partner."

26 12. At Gong's direction, the name of the venture was changed from GoldShield
27 Networks to ForeSecurity, and Gong thereafter identified himself as ForeSecurity's Co-Founder
28

1 and Vice President of Engineering. Wang and Gong had numerous (approximately thirty),
2 lengthy face-to-face meetings and scores of telephone conversations throughout 2005, during
3 which Gong developed a thorough understanding of all of the technologies invented by Wang and
4 Wang's detailed business ideas. Gong also served as Wang's business advisor, and advised Wang
5 as to how they should jointly proceed with the business.

6 13. In conversations with Wang and potential funding sources, Gong referenced the
7 technology conceived by Wang as "our product" and "our technology." He also described Wang's
8 technology as "revolutionary" and "truly disruptive." Gong explained to one of his colleagues
9 that the technology underlying ForeSecurity was a "content protection and compliance-
10 enforcement solution that will revolutionize how content-borne threat protection, content access
11 control and quality-assured content delivery is done; a solution to enable enterprises and service
12 providers to effectively stop all the epidemic-style (*sic*) attacks, on the first sight, from reaching
13 any critical resources and from spreading across the network, to remove unwanted content from
14 their networks, and to prevent all the unauthorized content accesses; and a solution to relieve the
15 users of the extremely-difficult choice between complete threat protection and negative impact on
16 business efficiency."

17 14. Wang informed Gong that his inventions and business ideas were to remain
18 confidential and proprietary, and the written materials describing his invention and business ideas
19 were so labeled. Gong agreed to maintain such information in confidence. In his dealings with
20 possible funding sources, Gong identified the written materials associated with ForeSecurity as
21 confidential and proprietary.

22 15. Wang and Gong also agreed upon ownership shares in the venture, which shares
23 were to be documented upon ForeSecurity's incorporation. Wang's share was two-thirds of their
24 total share; Gong's was one-third of their total share. The disparity in ownership was based on the
25 respective contributions which Gong and Wang were bringing and would bring to the venture:
26 Wang brought the technology and main business ideas, and would oversee overall technology and
27

1 hardware and chip development; Gong brought business acumen, credibility in the market, and
2 would oversee security software and system development.

3 16. On June 9, 2005, Wang and Gong met with Nir Zuk, who had left Juniper
4 Networks and was looking to get his own one-person company, PAN, off the ground. The
5 purpose of the meeting was to see if it made sense for the parties to join forces. Though the
6 technical discussion at the meeting was at a very high level, Wang understood that PAN and
7 ForeSecurity were pursuing different technologies and different business ideas: ForeSecurity
8 focused on content-based, user-based and application-based integrated security emphasizing fine-
9 grained control and easy management, while PAN was focused on better conventional firewall
10 and virtual private networks for wide area network links. Also at that meeting, Wang and Gong
11 told Zuk that it was Wang who was responsible for the technology at the heart of the ForeSecurity
12 venture, and that Wang had a patent application pending on the foundation of that technology.

13 17. A few days later, Wang and Zuk had breakfast together. In the course of that
14 meeting, Zuk told Wang that (1) Wang's patent application was useless without access to
15 sufficient resources, and (2) he did not care whether he infringes anyone else's patents. Wang's
16 conversations with Zuk went no further.

17 18. On or about August 30, 2005, Gong told Wang that his noncompetition agreement
18 with McAfee precluded further public involvement in the development and promotion of
19 ForeSecurity until April 1, 2006. Nonetheless Gong and Wang continued to have their face-to-
20 face meetings through October 31, 2005 and their discussions over email and telephone until
21 January 4, 2006. Furthermore, the same issue was discussed between Gong and Wang as early as
22 April of 2005. Both Gong and Wang understood that this would not be a serious impediment and
23 they continued to work together thereafter.

24 19. On or about January 10, 2006, Gong informed Wang that due to lay-offs at
25 McAfee, he had just joined Nir Zuk at PAN. Gong further explained that he had to quickly land a
26 job to feed his family. Wang wished Gong well and thereafter abandoned any further attempts to
27 found the venture for security systems. Wang later learned that Gong's statements were false.

1 20. On July 20, 2012, PAN conducted an initial public offering, and the success of that
2 IPO prompted several reports and articles about PAN’s success story based on its differential
3 product features and unique technologies in the news media. By reading those articles, Wang
4 discovered that those differential product features and unique technologies were not only different
5 from Zuk's and Gong's explanation of PAN's business model and product features, but also that
6 PAN’s technology seemingly replicated Wang’s product features and technologies. Accordingly,
7 he began researching PAN to learn more. During his research, Wang discovered the existence of
8 the '566 patent (issued August 30, 2011), which Gong, Zuk and two other PAN employees had
9 applied for on June 26, 2006. In the original application, Zuk and Gong were listed as the first
10 and second inventors. PAN owns the '566 patent.

11 21. Wang also discovered statements made by Zuk and PAN in 2012 in the lawsuit
12 Juniper Networks, Inc. v. Palo Networks, Inc., C.A. No. 11-1258-SLR (D. Del.) indicating that
13 (1) PAN's detailed business plan and architectural schema were created well after his June, 2005
14 meetings with Zuk, and (2) Gong had played a key role in crafting both. Though a declaration of
15 Zuk was filed under seal, a PAN pleading (Doc. No. 12) citing that declaration indicates: (1)
16 Gong joined with Zuk as a "founder" of PAN in perhaps as early as July of 2005; (2) PAN
17 funding proposals dated November and December of 2005 expressly identified Gong as PAN's
18 Chief Scientist and co-founder and (3) Gong was specifically identified as one of four persons
19 who developed a "detailed business plan" and the "architectural schema" for PAN's "next
20 generation" firewall technology.

21 **FIRST CLAIM FOR RELIEF**
22 **(FOR DECLARATORY JUDGMENT**
23 **AGAINST PAN TO CORRECT INVENTORSHIP)**

24 1-21. Plaintiff realleges and incorporates Paragraphs 1 through 21 above as Paragraphs 1
25 through 21 of Count I.

26 22. The invention described and claimed in the '566 patent relates to methods and
27 apparatus for classifying and processing data packets in a computer network, including multi-
28 mode classification based on header and content including stateful signature-based application

1 recognition, content-based protocol decoding, extraction and pattern matching, and interactions
2 among the multi-mode classification and the content-based protocol decoding, extraction and
3 pattern matching.

4 23. Wang disclosed the novel limitations of the claims of the '566 patent to Gong in
5 2005 both orally and in writing, including the limitations relating to multi-mode classification
6 based on header and content including stateful signature-based application recognition, content-
7 based protocol decoding, extraction and pattern matching, and interactions among the multi-mode
8 classification and the content-based protocol decoding, extraction and pattern matching.

9 24. In 2005, Gong described Wang's inventions as "revolutionary" and "truly
10 disruptive," well before his purported conception of the claims of the '566 patent.

11 25. At a minimum, Wang made substantial contributions to, and is a co-inventor (if
12 not the sole inventor) of, claims 1-17 of the '566 patent.

13 26. An actual controversy exists between Wang and PAN with respect to the
14 inventorship and ownership of the '566 patent.

15 WHEREFORE, Wang prays for relief as set forth below.

16 **SECOND CLAIM FOR RELIEF**
17 **(FOR TRADE SECRET MISAPPROPRIATION**
18 **AGAINST PAN, ZUK AND GONG)**

19 1-26. Plaintiff realleges and incorporates Paragraphs 1 through 26 above as Paragraphs 1
20 through 26 of Count II.

21 27. Wang's technologies, including novel methods for content-based signature
22 scanning (i.e., pattern matching); stateful sub-port (i.e., signature-based) application recognition;
23 heuristic analysis for unknown applications; heuristic protocol anomaly; traffic (i.e., statistical)
24 anomaly analyses; automatic signature generation for unknown threats; fine-grain modular (i.e.,
25 multi-mode) classification based on headers and content including using Application-ID, Content-
26 ID and User-ID; and single-pass parallel architecture for integrated securities and services, which
27 is stream-based (vs. file-based) and on a purpose-built platform for high-performance, fine-
28 grained control, easy management, low latency and costs constitute trade secrets under Cal. Civil

1 Code §3426.1. The trade secrets were not generally known to the public or to other persons who
2 could obtain economic value from their disclosure or use and they were not known to Gong
3 before Wang's disclosure. Wang took reasonable efforts to maintain secrecy of the trade secrets.

4 28. Wang and Gong had a confidential relationship, which Gong voluntarily assumed,
5 and Gong acquired the trade secrets under circumstances giving rise to a duty to maintain their
6 secrecy and limit their use.

7 29. Zuk encouraged Gong to leave his venture with Wang and join PAN as a co-
8 founder. Thereafter, Zuk put Gong in charge of designing the architectural schema for what PAN
9 calls its next generation firewall technology, knowing that Gong had access to Wang's inventions.
10 Zuk also placed Gong in charge of filing a patent application on that architecture. As officers and
11 co-founders of PAN, both Gong and Zuk knew that Gong was using Wang's trade secrets without
12 Wang's consent, and that Gong had acquired those trade secrets under circumstances giving rise
13 to a duty to maintain their secrecy and limit their use.

14 30. PAN's "next generation firewall technology," including content-based protocol
15 decoding, extraction and pattern matching, stateful signature-based application recognition,
16 heuristic analysis for unknown applications and heuristic, protocol anomaly, and statistical
17 anomaly analyses and automatic signature generation for unknown threats, fine-grain multi-mode
18 classification based on headers and content using Application-ID, Content-ID and User-ID,
19 single-pass parallel architecture for integrated securities and services, which is stream-based (vs.
20 file-based) and on a purpose-built platform for high-performance, fine-grained control, easy
21 management, and low latency and costs, and its '566 patent, are based at least in part on (if not
22 completely based on) Wang's trade secrets.

23 31. The actions of Gong, Zuk and PAN constitute willful misappropriation of trade
24 secrets.

25 32. Wang first learned of the trade secret misappropriation in August of 2012 through
26 the exercise of reasonable diligence.

27 WHEREFORE, Wang prays for relief as set forth below.

**THIRD CLAIM FOR RELIEF
(FOR PATENT INFRINGEMENT AGAINST PAN)**

1-32. Plaintiff realleges and incorporates Paragraphs 1 through 32 above as Paragraphs 1 through 32 of Count III.

33. Wang also owns U.S. Patent No. 7,870,161 B2 entitled "Fast Signature Scan," which issued January 11, 2011 (the '161 patent) as a continuation of his '418 patent. The '418 patent and '161 patent are attached hereto as Exhibits A and B, respectively.

34. In early 2006, Gong, at the direction of Zuk, authored PAN's content inspection algorithm which, in key respects, copied Wang's then-pending patent application (which eventually issued as the '418 patent). Wang believes that such algorithm is used across PAN's product line; specifically in PA-200, PA-500, PA-2020, PA-2050, PA-3020, PA-3050, PA-4050, PA-4060, PA-5020, PA-5050 and PA-5060.

35. PAN's use of such algorithm infringes claims 1, 6, 9 and 14 of the '418 patent and claims 1, 12, 14 and 23 of the '161 patent.

36. Some of the cited claims are method claims for which Wang contends PAN is liable under Section 271(b). As to those claims, if PAN did not have actual knowledge of both patents-in-suit, then it made the accused sales with willful blindness as to those sales.

37. PAN's infringement has been willful.

WHEREFORE, Wang prays for relief as set forth below.

PRAYER FOR RELIEF

As to his claim for correction of inventorship, Wang seeks entry of judgment in his favor and against PAN as follows:

(a) Declaring that Wang is a true and proper inventor (if not the sole inventor) of the '566 patent;

(b) Directing the Commissioner of Patents and Trademarks to correct the error in named inventors of the '566 patent and to issue a certificate naming Wang as an inventor (if not the sole inventor) on the '566 patent;

- 1 (c) Declaring that Wang is an owner (if not the sole owner) of '566 patent; (d) Awarding
2 (d) Awarding Wang such other relief as the Court deems just and necessary.

3 As to his claim for trade secret misappropriation, Wang seeks entry of judgment in his
4 favor and against PAN, Zuk and Gong as follows:

5 (a) Awarding Wang compensatory damages including at least Defendants' unjust
6 enrichment from their misappropriation of trade secrets;

7 (b) Awarding Wang exemplary damages;

8 (c) Awarding Wang his reasonable attorneys' fees and costs; and

9 (d) Awarding Wang such other relief as the Court deems just and necessary.

10 As to his claim for patent infringement, Wang seeks the entry of judgment in his favor and
11 against PAN for infringement of the '418 and '161 patents as follows:

12 (a) Awarding Wang damages adequate to compensate him for the infringement which has
13 occurred, but in no event less than a reasonable royalty as permitted by 35 U.S.C. §284, together
14 with prejudgment interest from the date the infringement began;

15 (b) Awarding Wang enhanced damages and his attorneys fees pursuant to 35 U.S.C. §285,
16 and

17 (c) Awarding Wang such other relief as the Court deems just and necessary.

18 **JURY DEMAND**

19 Wang demands a trial by jury on all issues so triable.

20
21
22 Dated: August 8, 2013

Respectfully submitted,

23 By: /s/ Paul K. Vickrey

24
25 Raymond P. Niro
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27 David J. Sheikh (*admitted pro hac vice*)
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CERTIFICATE OF SERVICE

The undersigned hereby certifies that on August 8, 2013 the foregoing

AMENDED COMPLAINT AND JURY DEMAND

was filed with the Clerk of Court using the CM/ECF system, which will then send a notification of such filing to the following counsel of record.

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I certify that all parties in this case are represented by counsel who are CM/ECF participants.

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