IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

PROVEN NETWORKS, LLC.,	
Plaintiff,	Case No. 6:21-cv-00003
v.	**JURY TRIAL DEMANDED**
BROADCOM, INC.,	
Defendant.	

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT
AGAINST BROADCOM, 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 Proven Networks, LLC ("Plaintiff" or "Proven

Networks") makes the following allegations against Defendant Broadcom, Inc. ("Defendant"):

INTRODUCTION

1.   This complaint arises from Defendant's unlawful infringement of the following

United States patents owned by Proven Networks, each of which generally relate to data

networking technology: U.S. Patent Nos. 7,450,507 (the "'507 Patent"), 8,165,024 ("'024 Patent"),

7,506,381 ("'381 Patent") (collectively, the "Asserted Patents").

PARTIES

2.   Plaintiff Proven Networks, LLC is a company organized under the laws of the State

of California. Proven Networks is the sole owner by assignment of all right, title, and interest in

each Asserted Patent.

3.   On information and belief, Defendant Broadcom, Inc. is a corporation organized under the laws of the State of Delaware, with its principal place of business at 1320 Ridder Park Drive, San Jose, California 95131.

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 Defendant in this action because Defendant 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 Defendant would not offend traditional notions of fair play and substantial justice. Defendant, directly and through subsidiaries or intermediaries, has committed and continues to commit acts of infringement in this District by, among other things, making, using, importing, offering to sell, and selling products that infringe the Asserted Patents.

6.   Venue is proper in this District under 28 U.S.C. § 1400(b). Defendant is registered to do business in Texas, and upon information and belief, Defendant has transacted business in this District and has committed acts of direct and indirect infringement in this District by, among other things, importing, offering to sell, and selling products that infringe the asserted patents. Defendant has a regular and established place of business in the District, including a corporate office at 2901 Via Fortuna Drive, Austin, Texas 78746.[1]

COUNT I

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[1] *See, e.g.*, https://www.broadcom.com/company/contact.

INFRINGEMENT OF U.S. PATENT NO. 7,450,507

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 in U.S. Patent No. 7,450,507 titled "Hierarchal Rate-Limiting at a Network Node that Utilizes an Infinity Rate-Limit Check." The '507 Patent was duly and legally issued by the United States Patent and Trademark Office on November 11, 2008. A true and correct copy of the '507 Patent is attached as Exhibit 1.

9.   The management and optimization of data flow in networking systems is essential in modern society. Not only do computers, smartphones, and home automation devices operating via the Internet generate data traffic, but basic technology such as voice services and file transfers do as well. The enormous increase in multimedia content, such as videos, has greatly increased data traffic without proportional increases in data bandwidth. One problem caused by the large consumption of high-bandwidth multimedia content is that more important data, including relatively low-bandwidth services such as voice services and data transfers (e.g., financial data), can suffer due to lack of bandwidth, resulting in dropped calls and incomplete file transfers. Optimization of data traffic in data networks has become even more important in order to navigate the bandwidth limitations.

10.   The '507 Patent along with the '024 Patent discussed below address the general problem of network congestion and bandwidth limitations by providing specific techniques to optimize and manage data traffic. These patents originated from telecommunications and wireless networking research from Lucent Technologies (now Alcatel-Lucent) in the early to mid 2000's. The inventors were keenly aware of the increase of high-bandwidth applications such as video, especially in wireless and mobile networks, and sought to develop technology to maintain

acceptable performance for as many users, for as long as possible, under varying and adverse data traffic conditions.

11.   For example, the '507 Patent teaches a rate-limiting hierarchy method to control the bandwidth usage of different classifications of data traffic with provisions for exceeding the designated bandwidth by borrowing excess bandwidth from other classifications of data traffic under configurable condition. The '024 Patent teaches the use of a "deep packet inspection" device, especially in wireless networks, to examine the characteristics of data packets passing through the network in order to provide classification data to the data packets for downstream application-specific processing.

12.   On information and belief, Defendants make, use, offer for sale, sell, and/or import certain products ("Accused Products"), such as the Symantec PacketShaper and PacketShaper series S200, S400, and S500 that directly infringe, literally and/or under the doctrine of equivalents, claims 1–20 of the '507 Patent.

13.   Since at least the date of the filing and service of this Complaint, Defendants have also knowingly and intentionally induced infringement of claims 1–20 of the '507 Patent in violation of 35 U.S.C. §271 (b). Defendants have knowledge of the '507 Patent and the infringing nature of the Accused Products based on the filing and service of this Complaint. Despite this knowledge of the '507 Patent, Defendants continue to actively encourage and instruct their customers and end users (for example, through user manuals and online instruction materials on their website) to use the Accused Products in ways that directly infringe the '507 Patent. Defendants do so knowing and intending that their customers and end users will commit these infringing acts. Defendants also continue to make, use, offer for sale, sell, and/or import the Accused Products, despite their knowledge of the '507 Patent, thereby specifically intending for

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and inducing their customers to infringe the '507 Patent through the customers' normal and customary use of the Accused Products.

14.   The Accused Products satisfy all claim limitations of claims 1–20 of the '507 Patent. A claim chart comparing independent claim 1 of the '507 Patent to the representative Accused Product, PacketShaper and PacketShaper series S200, S400, and S500, is attached as Exhibit 2.

15.   By making, using, offering for sale, selling and/or importing into the United States the Accused Products, Defendants have injured Plaintiff and are liable for infringement of the '507 Patent pursuant to 35 U.S.C. §271.

16.   As a result of Defendants' infringement of the '507 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Defendants' infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendants, together with interest and costs as fixed by the Court.

COUNT II

INFRINGEMENT OF U.S. PATENT NO. 8,165,024

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 in U.S. Patent No. 8,165,024, titled "Use of DPI to Extract and Forward Application Characteristics." The '024 Patent was duly and legally issued by the United States Patent and Trademark Office on April 24, 2012. A true and correct copy of the '024 Patent is attached as Exhibit 3.

19.   On information and belief, Defendant makes, uses, offers for sale, sells, and/or imports certain products ("Accused Products"), such as Symantec Security Analytics and Security

Appliances, that directly infringe, literally and/or under the doctrine of equivalents, claims 1–25 of the '024 Patent.

20.   Defendant also knowingly and intentionally induces infringement of claims 1–25 of the '024 Patent in violation of 35 U.S.C. § 271(b). At least through the filing and service of this Complaint, Defendant has knowledge of the '024 Patent and the infringing nature of the Accused Products. Despite this knowledge of the '024 Patent, Defendant continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website) to use the Accused Products in ways that directly infringe the '024 Patent. Defendant does so knowing and intending that its customers and end users will commit these infringing acts. Defendant also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the '024 Patent, thereby specifically intending for and inducing its customers to infringe the '024 Patent through the customers' normal and customary use of the Accused Products.

21.   The Accused Products satisfy all claim limitations of claims 1–25 of the '024 Patent. A claim chart comparing independent claim 1 of the '024 Patent to the representative Accused Product, Symantec Security Analytics, is attached as Exhibit 4.

22.   By making, using, offering for sale, selling and/or importing into the United States the Accused Products, Defendant has injured Plaintiff and is liable for infringement of the '024 Patent pursuant to 35 U.S.C. § 271.

23.   As a result of Defendant's infringement of the '024 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court.

24.   Defendant's infringing activities have injured and will continue to injure Plaintiff unless and until this Court enters an injunction prohibiting further infringement of the '024 Patent, and, specifically, enjoining further manufacture, use, sale, importation, and/or offers for sale that come within the scope of the patent claims.

COUNT III

INFRINGEMENT OF U.S. PATENT NO. 7,506,381

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

26.   Plaintiff owns by assignment all rights, title, and interest in U.S. Patent No. 7,506,381, titled "Method for Securing an Electronic Device, a Security System, and an Electronic Device." The '381 Patent was duly and legally issued by the United States Patent and Trademark Office on March 17, 2009. A true and correct copy of the '381 Patent is attached as Exhibit 5.

27.   On information and belief, Defendant makes, uses, offers for sale, sells, and/or imports certain products ("Accused Products"), such as Broadcom Secure Processors, that directly infringe, literally and/or under the doctrine of equivalents, at least one claim of the '381 Patent.

28.   Defendant also knowingly and intentionally induces infringement of claims of the '381 Patent in violation of 35 U.S.C. § 271(b). At least through the filing and service of this Complaint, Defendant has knowledge of the '381 Patent and the infringing nature of the Accused Products. Despite this knowledge of the '381 Patent, Defendant continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website) to use the Accused Products in ways that directly infringe the '381 Patent. Defendant does so knowing and intending that its customers and end users will commit these infringing acts. Defendant also continues to make, use, offer for sale, sell, and/or import the

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Accused Products, despite its knowledge of the '381 Patent, thereby specifically intending for and inducing its customers to infringe the '381 Patent through the customers' normal and customary use of the Accused Products.

29.   The Accused Products satisfy all claim limitations of at least one claims of the '381 Patent. A claim chart comparing independent claim 21 of the '381 Patent to the representative Accused Product, Broadcom Secure Processors[2] incorporating ARM TrustZone, is attached as Exhibit 6.

30.   By making, using, offering for sale, selling and/or importing into the United States the Accused Products, Defendant has injured Plaintiff and is liable for infringement of the '381 Patent pursuant to 35 U.S.C. § 271.

31.   As a result of Defendant's infringement of the '381 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court.

32.   Defendant's infringing activities have injured and will continue to injure Plaintiff unless and until this Court enters an injunction prohibiting further infringement of the '381 Patent, and, specifically, enjoining further manufacture, use, sale, importation, and/or offers for sale that come within the scope of the patent claims.

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[2] Broadcom Secure Processors include at least the StrataGX® Secure SoCs, *See* *https://www.broadcom.com/products/embedded-and-networking-processors/secure* and all Broadcom chips or processors that incorporate ARM Trustzone. Likewise, Proven believes products identified as having "Secure Boot" may also infringe and identify those for the purposes of notice as well, including the StrataGX® BCM5820X, BCM5810X, and BCM58302/303 families of microcontrollers and processors.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests that this Court enter:

a.   A judgment in favor of Plaintiff that Defendant has infringed, either literally and/or under the doctrine of equivalents, the '507 Patent, '024 Patent, and the '381 Patent;

b.   A judgment and order requiring Defendant to pay Plaintiff its damages, costs, expenses, and pre-judgment and post-judgment interest for Defendant' infringement of the '507 Patent, '024 Patent, and the '381 Patent; and

c.   A judgment and order requiring Defendant to provide an accounting and to pay supplemental damages to Plaintiff, including without limitation, pre-judgment and post-judgment interest;

d.   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 Defendant; and

e.   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: March 18, 2021   Respectfully submitted,

                                         /s/ Reza Mirzaie

                                         Reza Mirzaie (CA SBN 246953)
                                         rmirzaie@raklaw.com
                                         Marc A. Fenster (CA SBN 181067)
                                         Email: mfenster@raklaw.com
                                         Brian D. Ledahl (CA SBN 186579)

Email: bledahl@raklaw.com
Benjamin T. Wang (CA SBN 228712)
Email: bledahl@raklaw.com
Paul A. Kroeger (CA SBN 229074)
Email: pkroeger@raklaw.com
RUSS AUGUST & KABAT
12424 Wilshire Blvd. 12th Floor
Los Angeles, CA 90025
Phone: (310) 826-7474

Attorneys for Plaintiff Proven Networks, LLC

CERTIFICATE OF SERVICE

I certify that on March 18, 2021, a true and correct copy of the foregoing document was electronically filed with the Court and served on all parties of record via the Court's CM/ECF system.

/s/ Reza Mirzaie
Reza Mirzaie