**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA**

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| BUSHNELL HAWTHORNE, LLC, | ) | |
| Plaintiff, | ) | |
| | ) | |
| v. | ) | Case No. 1:18cv760-TSE-MSN |
| | ) | |
| CISCO SYSTEMS, INC. | ) | |
| | ) | JURY TRIAL DEMANDED |
| Defendant. | ) | |
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**SECOND AMENDED COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Bushnell Hawthorne, LLC ("Bushnell") files this complaint for patent infringement against Defendant Cisco Systems, Inc. ("Cisco").

**PARTIES**

1.      Plaintiff Bushnell is a corporation organized and existing under the laws of the Commonwealth of Virginia with its principal place of business in Leesburg, Virginia.

2.      On information and belief, Defendant Cisco is a California corporation with its principal place of business at 170 West Tasman Drive, San Jose, CA 95134.

3.      Bushnell is the owner of two United States patents: U.S. Patent No. 7,310,686, titled "Apparatus and Method for Transparent Selection of an Internet Server Based on Geographic Location of a User" ("the '686 Patent") and U.S. Patent No. 7,933,951, titled "Systems and Methods for Discerning and Controlling Communication Traffic" ("the '951 Patent") (collectively, "the Asserted Patents").

4.      Cisco directly and/or indirectly makes, uses, imports, distributes, markets, sells and/or offers to sell throughout the United States, including in this judicial district, products and/or services that infringe the claims of the Asserted Patents as described below.

## JURISDICTION AND VENUE

5.      This is an action for patent infringement, arising under the patent laws of the United States, 35 U.S.C. §§ 1, *et seq.*

6.      This Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 1331 and 1338(a).

7.      Cisco conducts substantial business in this judicial district, including, but not limited to, regularly soliciting business from, doing business with, and deriving revenue from goods and services provided to customers in this district. Cisco has infringed the Asserted Patents in this judicial district, and such acts are continuing. Cisco further maintains a regular and established place of business in this district at 13615 Dulles Technology Drive, Herndon, VA 20171. Because Cisco is has committed acts of patent infringement in this judicial district and maintains a regular and established place of business in this district, this Court has personal jurisdiction over Cisco.

8.      Because Cisco has committed acts of patent infringement in this judicial district, because Cisco provides services and/or products in this judicial district, maintains a regular and established place of business in this district, and otherwise has minimum contacts here, venue is proper in this judicial district under 28 U.S.C. §§ 1391(b)-(d), and 1400(b).

## U.S. PATENT NO. 7,933,951

9.      The United States Patent and Trademark Office duly and legally issued the '951 Patent on April 26, 2011, to inventors Michael Sullivan and Alan Sullivan. Bushnell is the owner of the '951 Patent by assignment. A true and correct copy of the '951 Patent is attached as Exhibit A.

10.      The '951 Patent generally claims improvements in the redirection of Internet requests using a technique known as "predictive intelligence." Redirection of Internet requests can be desirable for several reasons. For example, given the increasing number of security threats on the Internet, it may be preferable for users navigating to websites with known security risks to be redirected away from those sites before the site can do any harm to the user's computer. The redirection may take many forms, including blocking the user from accessing the requested site or providing an intermediate warning page with information about the risks so that the user can make an informed decision about whether to continue to the page as initially requested.

11.      Internet communications are available in several different formats, known as "protocols." One of the most common protocols is HTTP, which stands for hypertext transfer protocol. Other protocols include HTTPS (HTTP secure), FTP (file transfer protocol), and SMTP (simple mail transfer protocol). Because the various protocols require different levels of resources, such as memory or processing power, it is often preferable to make sure that a redirect page, whether in the form of a block page or a warning page, is delivered in a form that matches the protocol of the request. For example, if a request made via the HTTPS protocol is redirected to a warning page, the warning page should itself be served to the user via the HTTPS protocol. Doing so ensures a consistency between the request and the response, which in turn allows the ISP or content provider to allocate the appropriate level of resources to the request.

12.      The inventions claimed by the '951 Patent use predictive intelligence to identify the communications protocol needed to service an Internet request. Predictive intelligence functions by capturing an Internet request, analyzing the data contained therein for evidence of the protocol used to make the request, then directing the request to a response that uses the same protocol. Claim 1, which is representative, reads as follows:

a computer system for redirecting Internet communications, said system comprising:

a first processor that receives information from a computer at a point of origin;

a second processor that analyzes the information for one or more pre-defined bit strings or character sets;

a third processor that receives return information from a computer that communicates with other computers on the Internet;

a fourth processor that analyzes the return information for said one or more pre-defined bit strings or character sets;

a fifth processor that a) supplies one or more IP Addresses for the information requested if one or more of the pre-defined bit strings or character sets are not encountered, b) supplies one or more second IP Addresses for the information requested if one or more different bit strings or character sets are encountered, c) supplies one or more third IP Addresses if one or more of the pre-defined bit strings or character sets are encountered and a higher level protocol can be inferred, and/or d) allows the traffic to flow thru unmodified; and

a sixth processor that analyzes a request submitted to said different IP Address for one or more alternative bit strings or character sets, wherein the alternative bit strings or character sets are indicative of a particular higher level Internet communication protocol, and

wherein the system further comprises maintaining a list of bit strings or character sets for which a different IP Address should not be supplied, wherein the list is updated one or more times after creation of the list, and wherein the list is updated based on monitoring of requests for: originating IP Address, requested hostname, size of a DNS query, frequency of a single hostname or domain name, port number, date, and/or time.

(Ex. B, '951 Patent at Col. 21, ll. 9-45).

13.     The inventions claimed by the '951 Patent represent uses of technology that were unconventional as of January 20, 2006, when the inventors filed the provisional application for the '951 Patent at the USPTO.

14.     As a result of the technology claimed in the '951 Patent, the functionality and performance of Internet security using predictive intelligence has improved to the point that there has been unprecedented growth in the use and value of such security. In 2015, for example, Cisco purchased OpenDNS, a company that specialized in predictive intelligence-based Internet security, for $635 million.[1] That growth in use and value would not have been possible without the technology claimed by the '951 Patent.

## COUNT I – INFRINGEMENT OF U.S. PATENT NO. 7,933,951

15.     Bushnell re-alleges and incorporates herein by reference the allegations stated in paragraphs 1-14 of this Complaint.

16.     Cisco has infringed and is continuing to infringe, literally or through the Doctrine of Equivalents, directly, jointly, or indirectly, contributorily and/or through the inducement of others, one or more claims of the '951 Patent, by making, using, offering to sell and/or selling in this judicial district and elsewhere within the United States and/or importing into the United States security products using predictive intelligence to redirect Internet requests for security purposes based at least in part on matching the protocol of the request with the protocol of the response (the "Accused Security Products), including but not limited to its Umbrella and OpenDNS products, and providing services related to the Accused Security Products that are within the scope of at least claim 1 of the '951 patent, constituting infringement under 35 U.S.C. § 271 (a), (b), (c) and/or (g).

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[1] https://www.reuters.com/article/us-opendns-m-a-cisco-systems/cisco-to-buy-opendns-for-635-million-to-boost-security-business-idUSKCN0PA1IK20150630, accessed on June 20, 2018.

17.     Cisco's direct infringement includes, without limitation, making, selling, offering for sale, using the systems and methods of claims 1 through 21 of the '951 Patent. Specifically, Cisco's Accused Security Products use predictive intelligence to match the protocols of Internet requests with the protocols of responses when redirecting those requests for security purposes in the manner set forth in the above-identified claims. For example, when redirecting a request for security purposes, Cisco's Accused Security Products use predictive intelligence to identify the protocol of the request and then provide a response, whether in the form of a block page or a warning page, using the same protocol as the request. As a result, Cisco is liable for direct infringement of at least the above-identified claims of the '951 Patent under 35 U.S.C. § 271(a) through its use, manufacture, sale, and offer of sale of the Accused Security Products.

18.     To the extent any factfinder concludes that Cisco does not literally satisfy any element of the claims of the '951 Patent, those elements are met under the Doctrine of Equivalents.

19.     In addition to its liability for direct infringement of the above-identified claims of the '951 Patent, Cisco is also liable for indirectly infringing the above-identified claims of the '951 Patent in this judicial district and elsewhere in the United States by inducing direct infringement in violation of 35 U.S.C. § 271(b) and by contributing to direct infringement in violation of 35 U.S.C. § 271(c).

20.     Cisco has been aware of the '951 Patent since service of the complaint in this action and its infringement is ongoing. In addition, Cisco has been aware since at least 2015 that the Accused Security Products infringe the '951 Patent. Prior to that date, OpenDNS, a company acquired by Cisco in 2015, learned through a common investor it shared with Paxfire, Inc., the original owner of the '686 Patent, that certain OpenDNS technology infringed the '951 Patent. Upon information and belief, the common investor communicated that knowledge to OpenDNS

CEO David Ulevitch, who had overall responsibility for the development and sale of the Accused Security Products at OpenDNS. Despite that knowledge, OpenDNS continued to utilize the infringing technology and, upon information and belief, Cisco later incorporated it into the Accused Security Products after its acquisition of OpenDNS.

21.     Additionally, at least as early as 2008, Paxfire principals Alan Sullivan and Mark Lewyn informed Mr. Ulevitch that OpenDNS products and services were covered by claims contained in the application for the '951 Patent. Mr. Ulevitch disregarded that notice and proceeded to copy the claimed '951 Patent technology and incorporate it into OpenDNS's own products and services.

22.     Further, in 2011, after the '951 Patent issued, Paxfire's counsel sent a letter to OpenDNS informing them of their infringement of certain Paxfire intellectual property. Upon information and belief, that letter informed OpenDNS that it was infringing the '951 Patent. Upon further information and belief, Mr. Ulevitch received a copy of that letter.

23.     OpenDNS's knowledge of the '951 Patent and the knowledge of its infringement are attributable to Cisco as of the date of the acquisition. Mr. Ulevitch, who had knowledge of the infringement as described above and was responsible for the development of the Accused Security Products while at OpenDNS, joined Cisco in 2015 upon its acquisition of OpenDNS and became Senior Vice President and General Manager of Cisco's Security Business, which included at the time and still includes the former OpenDNS products and services and the Accused Security Products. Upon information and belief, upon joining Cisco in 2015, Mr. Ulevitch continued to have responsibility over the Accused Security Products.

24.     The direct infringement induced or contributed to by Cisco includes at least the use of the Accused Security Products by Cisco's customers acting in combination with or at the instruction of Cisco.

25.     Cisco encourages direct infringement of the above-identified claims of the '951 Patent by at least widely publicizing its Accused Security Products and providing instructions on its website and in published material for conducting the directly infringing use.

26.     Cisco induces continued infringement by at least encouraging and instructing its customers to perform some or all of the claimed steps, while in certain instances performing certain of the steps itself in coordination with such performance by customers.

27.     Cisco's specific intent to cause its customers to directly infringe can be inferred by its knowledge of the '951 Patent and from the striking similarity between the Accused Security Products and the claims of the '951 Patent. For example, both the '951 Patent and the Accused Security Products use predictive intelligence to match the protocol of an Internet request with the protocol of a response when the request is redirected for purposes of security.

28.     Cisco contributes to direct infringement of the asserted claims of the '951 Patent by providing its customers with the Accused Security Products and instructing them how to use them in an infringing manner. The Accused Security Products are not staple articles of commerce and have no substantial non-infringing uses. They are specifically designed to operate in a manner that directly infringes the asserted claims of the '951 Patent.

29.     Cisco's acts of infringement have caused damage to Bushnell and Bushnell is entitled to recover from Cisco the damages it has sustained as a result of Cisco's wrongful acts in an amount subject to proof at trial. Cisco's infringement of Bushnell's exclusive rights under the '951 Patent will continue to damage Bushnell, causing irreparable harm for which there is no

adequate remedy at law, unless enjoined by this Court. Cisco's ongoing infringement is willful and deliberate, as Cisco became aware of the infringing nature of its Accused Products no later than 2015 as described above, entitling Bushnell to increased damages and reasonable attorneys' fees pursuant to 35 U.S.C. §§ 284 and 285.

## PRAYER FOR RELIEF

WHEREFORE, Bushnell prays that it have judgment against Cisco for the following:

(1)   Adjudging that Cisco has infringed the '951 Patent;

(2)   Permanently enjoining and restraining Cisco and its agents, servants, employees, affiliates, divisions, and subsidiaries, and those in association, active concert or participation with any of them, from further acts of infringement, contributory infringement or inducement of infringement of any asserted claim of the '951 Patent;

(3)   Awarding damages to Bushnell, together with both pre-judgment and post-judgment interest;

(4)   Awarding increased damages pursuant to 35 U.S.C. § 284;

(5)   Finding this action constitutes an exceptional case pursuant to 35 U.S.C. § 285;

(6)   Awarding Bushnell all of its costs in this action, including attorneys' fees and expenses; and

(7)   Awarding such other and further relief, at law or in equity, to which Bushnell is justly entitled.

## JURY DEMAND

Bushnell hereby demands a jury trial on all issues so triable.

Dated: May 7, 2019                    Respectfully submitted,


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## CERTIFICATE OF SERVICE

I hereby certify that on this the 7th day of May, 2019, I filed the foregoing document with the Clerk of the Court using the CM/ECF System, which will then send a notification of such filing to the following:

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