

Xiaohua Huang
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Pro Se Plaintiff

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA**

Xiaohua Huang <i>Pro Se</i>)	Case Number: 3:20-cv-03837-TSH
Plaintiff(s),)	
vs.)	MR. Xiaohua Huang's second amended
)	complaint against Brightstar Systems
)	for patent infringement
Brightstar Systems)	
Defendant(s))	Demand for Jury Trial
)	

Plaintiff Xiaohua Huang (hereinafter "Huang" or "Plaintiff") alleges as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement arising out of U.S. Patent No. 6,999,331 (hereinafter the "331 Patent") issued on Feb 14, 2006 to Xiaohua Huang. This action is brought to remedy the infringement of '331 Patent by Defendant BrightStar Systems (hereinafter "Brightstar Systems" or "Defendant").

THE PARTIES

2. Xiaohua Huang is an individual, his current residential address is at 347 Massol Ave, #103, Los Gatos, CA95030. Huang has developed the state of the art high speed and low power U.S. patented TCAM designs to build IC chips used inside of Internet IP Routers("Routers"), Wireless routers, Ethernet Switches("Switches") and Data Center Switches etc. since the year of 2000.

3. Brightstar Systems is or purports to be a company with its main offices in 3100 Fite Circle, Suite 104 Sacramento, CA 95827, United States with contact telephone number (916) 248 4688. Brightstar Systems has built and sold at least, one of Routers, Switches to generate its revenues in the United States.

JURISDICTION AND VENUE

4. This action arises under the patent laws of the United States, 35 U.S.C. § 101, *et seq.* This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a). Venue is proper in this District pursuant to 28 U.S.C. §§1391(b) - (c) and 1400(b) in that Defendant has been generating revenues and profits through selling “Switches”, “Routers” which infringes the ‘331 patent within Northern California.

BACKGROUND FACTUAL ALLEGATION

5. A true and correct copy of the ‘331 patent is attached hereto as Exhibit C. The ‘331 Patent is valid and owned by Plaintiff Mr. Huang as the inventor.

6. In Nov. 2000 “Huang” found CMOS Micro Device Inc (“CMOS”) to develop Ternary Content Addressable Memory (TCAM). “Huang” is the owner of “CMOS”, “CMOS” is a California corporation and having its office in 900 East Hamilton Ave, Room 100, Campbell, California. TCAM are used to perform the search function in internet networking router, switches and Data Center Switches.

7. In Oct. 2001 “Huang” filed the provisional patent application titled “High-speed and low power content addressable memory (CAM) sensing circuits”, some content of which was granted as US patent 331 “CAM cells and differential sense circuit for content addressable memory (CAM)” in Feb.14, 2006.

8. From November, 2000 to April, 2002, Huang finished the design of ternary content addressable memory (TCAM) with 0.18um TSMC technology which are covered by the ‘331 Patent. The TCAM designed by Huang is three to

1 hundreds of times faster in speed and consume much less power than the same
2 products in Market at that time. Then Huang shared his patent application
3 with two Cisco executives, they were GM and VP of Router and Gigabit Switches
4 division respectively. They both consider that Huang's patent of TCAM are the
5 best solution among all the vendors and asked Huang to review their next
6 generation TCAM specification and do a feasible design to evaluate the possible
7 product performance. The design data provided by Huang is still better than the
8 best products in market today. '331 Patent is the basic fundamentals to design
9 high speed and low power TCAM used in 4G, 5G wireless routers, Internet
10 Router and Switches as well as Data Center Switches up to today. The TCAM
11 designed by Huang provide the example design using '331 Patent. By using the
12 '331 Patent the TCAM used in Routers and Switches helps Internet transfer
13 information Hundreds of time faster.

14 9. The patented TCAM developed by Huang has been recognized by the
15 industry. In 2003 Huang was an invited speaker to present his TCAM design at
16 networking symposium at Boston organized by the Industry Authority Linley
17 Group. In 2015 Huang was also a presenter of MEMCON 2015 in Santa Clara
18 convention center to present his patented TCAM design.

19 10. The ternary content addressable memory component are used as table
20 look up function and used in 4G, 5G wireless router, internet router and
21 switches as well as data center switches to perform table look up to realize
22 access control list(ACL), Quality of Service(QoS), VLAN, LPM, Packet
23 forwarding and other parallel searching.

24 11. Based on information (Data sheet, reverse engineering and
25 information obtained) and believe Huang found that the "TCAM" used in the
26 products sold by BrightStar systems including, but not limited to, Juniper
27
28

1 Network EX Series Switches (EX2200, EX3300, EX4200, EX4300, EX4500,
2 EX4550, EX4600, EX6200, EX8200, EX9200) have the following feature:

- 3 (a) Valid bit for each row to indicate whether the content stored in this row are
4 valid for search or not;
5
6 (b) a differential sense amplifier to sense match line signal;
7
8 (c) dummy line to be reference to match line;
9
10 (d) low voltage swing;.
11
12 (e) Valid bit dummy TCAM cell;
13
14 as well as the schematic (f) and (g) in Exhibit T.

15 The “TCAM” above infringes the claims of US patent 6999331, including but not
16 limited to the claim 1 of US patent 6999331. All those Gigabit Switches products
17 used the “TCAM ” to achieve access control list(ACL), Quality of Service(QoS),
18 VLAN, LPM and other parallel searching. Those EX series Switches products
19 have infringed the claim1 of US patent 6,999,331. The detail analysis how the
20 TCAM used in Juniper EX Series Switches are read by claim 1 of ‘331 patent is in
21 the Expert report in Exhibit T. Exhibit E shows that Juniper networks EX
22 Series Switches use TCAM which features are also disclosed in Exhibit T.

23 12. Switches sold by Brightstar Systems have sold Juniper Network’s EX
24 Series Switches using TCAM which has directly infringed US patent No.
25 6,999,331. Brightstar Systems has induced its customers to infringe the US
26 patent No. 6,999,331 through accessing and using the TCAM function of
27 Juniper Networks’ EX Series Switches which Brightstar Systems sold.
28 Brightstar Systems has made contributory infringement to US patent No.
6,999,331 through selling Juniper Networks’ EX Series Switches to build the

1 access of the Internet system which have infringed US patent No. 6,999,331
2 with the TCAM function of the Routers and Switches.

3 **THE INFRINGING PRODUCTS WHICH BRIGHTSTAR**
4 **SYSTEMS MAY HAVE USED**

5 13. Brightstar Systems is a company which has refurbished and sold networking
6 Router, Switches to its customers to build networks and access the Internet
7 Systems. Based on its company website the routers and devices which Brightstar
8 Systems sold including but not limited to:

9 Juniper Network EX Series Switches (EX2200, EX3300, EX4200, EX4300, EX4500,
10 EX4550, EX4600, EX6200, EX8200, EX9200).

11 Those Juniper Network EX Series Switches contains TCAM with the features,
12 picture and schematic described in Exhibit T. Exhibit T shows the details of
13 analysis how the TCAM used in Juniper Network EX Series Switches have
14 infringed claim 1 of '331.

15 14. Brightstar Systems has induced its customers to infringe the US patent No.
16 6,999,331 through accessing and using the TCAM function of the Routers and
17 Switches it has sold. Brightstar Systems has made contributory infringement to US
18 patent No. 6,999,331 through selling its routers and switches to build the access of
19 the Internet system which have infringed US patent No. 6,999,331 with the TCAM
20 described in Exhibit T because that those TCAM have been used in the Routers and
Switches of the Internet Systems.

21 **COUNT I: INFRINGEMENT OF U.S. PATENT NO. 6999331**

22 15. Plaintiff Mr. Huang refers to and incorporates herein the allegations of
23 Paragraphs 1-14 above.

24 16. On Feb.14, 2006, U.S. Patent No.6999331 (the "331Patent") was duly and
25 legally issued for a "CAM cells and differential sense circuit for content
26 addressable memory (CAM)." A true and correct copy of the '331 patent is
27 attached hereto as Exhibit C. Xiaohua Huang as inventor is the owner of all
28 rights, title, and interest in and to the '331 patent.

1 17. On information and belief, Brightstar Systems has infringed and continue
2 to infringe directly, indirectly, literally, on Doctrine of Equivalent one or more of
3 the claims of the '331 patent through selling Juniper Network's EX Series
4 Switches containing "TCAM" which have infringed at least claim 1 of the
5 '331 patent as analyzed in Exhibit T under 35 U.S.C. § 271(a), (b) and (c).

6 18. On information and belief, Brightstar Systems has induced its Customers
7 to have infringed and continue to infringe directly, indirectly, literally, on
8 Doctrine of Equivalent one or more of the claims of the '331 patent by transferring
9 data through Networking Routers and Switches of Internet and Data centers.
10 Those Networking Routers and Switches using "TCAM" which have infringed at
11 least claim 1 of the '331 patent as analyzed in Exhibit T under 35 U.S.C. § 271(a),
12 (b) and (c).

13 19. On information and belief, Brightstar Systems has made contributory
14 infringement directly, indirectly, literally, on Doctrine of Equivalent to one or
15 more of the claims of '331 patent by its customers adding its sold Juniper
16 Network's EX Series Switches to Internet System and transferring data through
17 the TCAM which have infringed at least claim 1 of the '331 patent as analyzed in
18 Exhibit T under 35 U.S.C. § 271(a), (b) and (c).

19 20. Defendant Brightstar Systems's acts of infringement, inducing
20 infringement and contributory infringement have caused damage to Xiaohua
21 Huang, and Xiaohua Huang is entitled to recover from Defendant Brightstar
22 Systems for the damages sustained by Xiaohua Huang as a result of Defendant
23 Brightstar Systems's wrongful acts in an amount subject to proof at trial.
24 Defendant Brightstar Systems's infringement of Xiaohua Huang exclusive rights
25 under the '331 patent will continue to damage Xiaohua Huang, causing
26 irreparable harm for which there is no adequate remedy at law, unless enjoined
27 by this Court. Defendant Brightstar Systems's infringement entitle Xiaohua
28

Huang to recover damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

JURY DEMAND

21. Pursuant to Fed. R. Civ. P. 38(b), Plaintiff Xiaohua Huang requests a trial by jury on all issues.

PRAYER FOR RELIEF

WHEREFORE, Xiaohua Huang prays for the following relief:

- (a). A judgment in favor of Xiaohua Huang that Defendant has infringed and is infringing U.S. Patent Nos. 6999331;
- (b). A judgment that the '331 patent is valid and enforceable;
- (c). An order preliminarily and permanently enjoining Defendant and its subsidiaries, parents, officers, directors, agents, servants, employees, affiliates, attorneys and all others in active concert or participation with any of the foregoing, from further acts of infringement of the '331 patent;
- (d). An accounting for damages resulting from Defendant's infringement of the '331 patent under 35 U.S.C. § 284;
- (e). An assessment of interest on damages;
- (f). A judgment awarding damages to Xiaohua Huang for its costs, disbursements, expert witness fees, and attorneys' fees and costs incurred in prosecuting this action, with interest pursuant to 35 U.S.C. § 285 and as otherwise provided by law;
- (g). Such other and further relief as this Court may deem just and equitable.

Dated: July 29, 2020

Respectfully Submitted,



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Exhibit C 6999331 Patent

Exhibit E Juniper Network's EX Series Switches uses TCAM

Exhibit T Expert Report

CERTIFICATE OF SERVICE

I hereby certify that the foregoing document was mailed to the Clerk of the Court and will be filed with the Court's CM/ECF system which will provide notice on all counsel deemed to have consented to electronic service. All other counsel of record not deemed to have consented to electronic service were served with a true and correct copy of the foregoing document by mail and email on this day.

Dated: July 29, 2020

By /S/ Xiaohua Huang