

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

OROSTREAM LLC,

Plaintiff,

v.

AEROHIVE NETWORKS, INC.,

Defendant.

C.A. No. _____

PATENT CASE

JURY TRIAL DEMANDED

ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Orostream LLC files this Original Complaint for Patent Infringement against Aerohive Networks, Inc., and would respectfully show the Court as follows:

I. THE PARTIES

1. Plaintiff Orostream LLC (“Orostream” or “Plaintiff”) is a Texas limited liability company with its principal place of business at 3401 Custer Road, Suite 125-B, Plano, Texas 75023.

2. On information and belief, defendant Aerohive Networks, Inc. (“Defendant”), is a corporation organized and existing under the laws of the State of Delaware.

II. JURISDICTION AND VENUE

3. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has subject matter jurisdiction of such action under 28 U.S.C. §§ 1331 and 1338(a).

4. On information and belief, Defendant is subject to this Court’s specific and general personal jurisdiction, pursuant to due process and the Delaware Long-Arm Statute, due at least to its business in this forum, including at least a portion of the infringements alleged

herein. Furthermore, Defendant is subject to this Court's specific and general personal jurisdiction because Defendant is a Delaware corporation.

5. Without limitation, on information and belief, within this state, Defendant has used the patented inventions thereby committing, and continuing to commit, acts of patent infringement alleged herein. In addition, on information and belief, Defendant has derived revenues from its infringing acts occurring within Delaware. Further, on information and belief, Defendant is subject to the Court's general jurisdiction, including from regularly doing or soliciting business, engaging in other persistent courses of conduct, and deriving substantial revenue from goods and services provided to persons or entities in Delaware. Further, on information and belief, Defendant is subject to the Court's personal jurisdiction at least due to its sale of products and/or services within Delaware. Defendant has committed such purposeful acts and/or transactions in Delaware such that it reasonably should know and expect that it could be haled into this Court as a consequence of such activity.

6. Venue is proper in this district under 28 U.S.C. § 1400(b). On information and belief, Defendant is incorporated in Delaware. For purposes of the patent venue analysis, Defendant therefore resides only in this District. On information and belief, from and within this District Defendant has committed at least a portion of the infringements at issue in this case.

7. For these reasons, personal jurisdiction exists and venue is proper in this Court under 28 U.S.C. § 1400(b).

III. COUNT I
(PATENT INFRINGEMENT OF UNITED STATES PATENT NO. 5,768,508)

8. Plaintiff incorporates the above paragraphs herein by reference.

9. On June 16, 1998, United States Patent No. 5,768,508 ("the '508 Patent") was duly and legally issued by the United States Patent and Trademark Office. The '508 Patent is

titled “Computer Network System and Method for Efficient Information Transfer.” A true and correct copy of the ‘508 Patent is attached hereto as Exhibit A and incorporated herein by reference.

10. Orostream is the assignee of all right, title and interest in the ‘508 patent, including all rights to enforce and prosecute actions for infringement and to collect damages for all relevant times against infringers of the ‘508 Patent. Accordingly, Plaintiff possesses the exclusive right and standing to prosecute the present action for infringement of the ‘508 Patent by Defendant.

11. The ‘508 patent has been cited as prior art during the prosecution history of over 100 subsequently-issued United States patents, including patents assigned to IBM, Intel, Facebook, Gateway, Hitachi, Microsoft, Nokia, Oracle, and Veritas Software.

12. **Direct Infringement.** Upon information and belief, Defendant has been directly infringing at least claim 26 of the ‘508 patent in the State of Delaware and elsewhere in the United States, by using Wi-Fi routers that prioritize Internet traffic, including Aerohive AP330 802.11n Wireless Access Point (“Accused Instrumentality”), to perform a method of connecting an information provider and a user node of a computer network, performed by a master program. The Accused Instrumentality performs registering the user node (*e.g.*, an Internet enabled user device such as a laptop, mobile phone) at a master node (*e.g.*, the Accused Instrumentality). The user node (*e.g.*, an Internet enabled user device such as a laptop, mobile phone) registers with the Accused Instrumentality by connecting (wired or wirelessly) with the accused instrumentalities (with or without using a password).

13. The Accused Instrumentality performs receiving, through the master node (*e.g.*, the Accused Instrumentality), a node ID (*e.g.*, MAC address) from the user node (*e.g.*, an

Internet enabled user device such as a laptop, mobile phone). (*See, e.g.,* <https://web.archive.org/web/20160106010557/http://www.aerohive.com/products/access-points/ap330.html>;
https://web.archive.org/web/20161018230602/http://media.aerohive.com/documents/Aerohive_Datasheet_AP330.pdf; https://aerohive-www-cdn.aerohive.com/wp-content/uploads/Aerohive_Solution-Brief_Euclid.pdf). A MAC (Media Access Control) address is a unique alpha-numeric identifier used to distinguish a device from others on a network. (*See, e.g., id.;* [https://technet.microsoft.com/en-us/library/cc757419\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/cc757419(v=ws.10).aspx)).

14. The Accused Instrumentality accesses a master database for profile information corresponding to the node ID. For example, the Accused Instrumentality accesses an internal table or a database for data to be appropriately transmitted to a particular user device that made the request for the data. The internal table or database is accessed for profile information, for example, a DHCP lease table is maintained in the Accused Instrumentality which stores profile information available to the Accused Instrumentality such as a MAC address, IP address, or device name corresponding to a user device. The Accused Instrumentality forms the internal table/database with the available profile information corresponding to the node ID, such as the MAC address. (*See, e.g.,* <https://web.archive.org/web/20160106010557/http://www.aerohive.com/products/access-points/ap330.html>;
https://web.archive.org/web/20161018230602/http://media.aerohive.com/documents/Aerohive_Datasheet_AP330.pdf).

15. The Accused Instrumentality transmits to the user node (*e.g.,* an Internet enabled user device such as a laptop, mobile phone), through the master node (*e.g.,* the Accused

Instrumentality), a target information reference (*e.g.*, address information for accessing a web page of a file categorized in high priority group that a user requested) corresponding to the accessed profile information (*e.g.*, requested content is tied to the IP address of the particular user device that requested it). The target information reference (*e.g.*, address information identifying a server or computer that a user will need to obtain information from in order to access a web page or an FTP file) is a pointer to target information to be delivered to the user node (*e.g.*, a web page or FTP file to be downloaded to an Internet enabled user device such as a laptop, mobile phone, etc.) while transferring non-target information without additional communication delay (*e.g.*, higher priority applications such as video conferencing (audio/video) and IP phone access, which the accused instrumentality gives a higher priority class) will be prioritized (*e.g.*, high priority group is “real-time” whereas low priority group is “non-real time”).

16. For example, the Accused Instrumentality will receive address information pointing to the server or computers delivering content (*e.g.*, data packets sent from other servers or computers will contain the IP address of the server/computer in the data packet’s header). These data packets are forwarded to the appropriate device (which requested access to the Internet information) based upon a destination IP address belonging to a particular device (corresponding to the accessed profile information for the particular device that requested access to the Internet information, or the device seeking to receive data from a particular Internet address) that is also within the header. The Accused Instrumentality will reference its routing table in order to forward data packets to an addressed device accordingly.

17. Furthermore, the Accused Instrumentality has QOS settings that allow prioritization of certain Internet traffic while allowing other traffic to continue. For example, a

file download (*e.g.*, target information such as basic internet access, FTP access, or Database access that are in low priority group and therefore “non-real time”) will be delivered to the user device while transferring non-target information without additional communication delay (video conferencing (audio/video) and IP Phone access data (in high priority group)) is prioritized and transferred without delay). The Accused Instrumentality can classify particular wireless data packets as network traffic that is non-real time sensitive (*e.g.*, target information) and place a lower priority on the transfer of target information (*e.g.*, background activity such as downloads) so as not to delay the continued transfer of non-target information (*e.g.*, foreground activity such as a video conferencing (audio/video) and IP Phone access).

Integrated Application Priority and Control

By using the robust Quality of Service (QoS) and stateful firewall built into Aerohive access points, the AP330 supports optimizing user application experience on the network. Aerohive access points allow an administrator to create customized user profiles based on context, such as identity of the user, device type, location, and time of day, to prioritize or block applications based on what is critical to that particular user. This user-focused approach ensures every user experience is optimized for mobility.

(*See, e.g.*, https://web.archive.org/web/20161018230602/http://media.aerohive.com/documents/Aerohive_Datasheet_AP330.pdf).

Hardware Assisted Features

Security

- Trusted Platform Module (TPM)–Hardware-based key storage and encryption
- Wireless privacy & authentication Wi-Fi CERTIFIED™ WPA™ and WPA2™, 802.11i, WEP, 802.1x, PSK
- Granular user profile-based management defines QoS, mobility policies, and security policies for each user that enters the network
- Encryption: AES:CCMP, TKIP, and RC4 (WEP only)
- Marking and policing–WMM™ (802.11e) for wireless, 802.1p and/ or DiffServ
- Wi-Fi CERTIFIED WMM
- WMM power save (U-APSD)

(See, e.g., *id.*).

Part 3 - User Priorities, Access Categories and Queues

The first QoS design change implemented as part of the 802.11e amendment and WMM certification, are User Priorities, Access Categories, and Queuing Structures.

The IEEE 802.11e amendment defines 8 user priorities (UP) for class of service (CoS) definition. These user priorities were established for layer 2 data link frame prioritization in alignment with earlier CoS standards including 802.1D (based on the work within the 802.1p task group).

These 8 user priorities are grouped into 4 access categories, containing two user priorities each. User priority 0 is placed into the Best Effort AC instead of the Background AC for backwards compatibility with non-QoS stations. This was done to preserve compatibility, as the IEEE deemed QoS functionality as an optional component for certification citing the lack of need for QoS by many legacy devices and applications. The mapping between 802.1D, 802.11e UP, and Access Category is show below.

Table 9-1—UP-to-AC mappings

Priority	UP (Same as 802.1D user priority)	802.1D designation	AC	Designation (informative)
Lowest ↓ Highest	1	BK	AC_BK	Background
	2	—	AC_BK	Background
	0	BE	AC_BE	Best Effort
	3	EE	AC_BE	Best Effort
	4	CL	AC_VI	Video
	5	VI	AC_VI	Video
	6	VO	AC_VO	Voice
	7	NC	AC_VO	Voice

(See, e.g., <http://revolutionwifi.blogspot.com/2010/08/wireless-qos-part-3-user-priorities.html>).

18. Plaintiff has been damaged because of Defendant's infringing conduct. Defendant is thus liable to Plaintiff for damages in an amount that adequately compensates Plaintiff for such Defendant's infringement of the '508 patent, *i.e.*, in an amount that by law cannot be less than would constitute a reasonable royalty for the use of the patented technology, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

IV. JURY DEMAND

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

V. PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests that the Court find in its favor and against Defendant, and that the Court grant Plaintiff the following relief:

- a. Judgment that one or more claims of United States Patent No. 5,768,508 have been infringed, either literally and/or under the doctrine of equivalents, by Defendant;
- b. Judgment that Defendant account for and pay to Plaintiff all damages to and costs incurred by Plaintiff because of Defendant's infringing activities and other conduct complained of herein, and an accounting of all infringements and damages not presented at trial;
- c. That Plaintiff be granted pre-judgment and post-judgment interest on the damages caused by Defendant's infringing activities and other conduct complained of herein; and
- d. That Plaintiff be granted such other and further relief as the Court may deem just and proper under the circumstances.

Dated: March 28, 2019

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