

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent of: Smethurst et al.  
U.S. Patent No.: 7,224,668  
Issue Date: May 29, 2007 Atty Docket No.: 40963-0006IP3  
Appl. Serial No.: 10/307,154  
Filing Date: Nov. 27, 2002  
Title: CONTROL PLANE SECURITY AND TRAFFIC FLOW  
MANAGEMENT

**DECLARATION OF BILL LIN**

I hereby declare that all statements made of my own knowledge are true and that all statements made on information and belief are believed to be true. I further declare that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of the Title 18 of the United States Code.

Dated: 12/8/15

By: 

Dr. Bill Lin

1. My name is Dr. Bill Lin. I am a professor of electrical and computer engineering at the University of California, San Diego. I understand that I am submitting a declaration in connection with Inter Partes review (“IPR”) proceedings before the United States Patent and Trademark Office for U.S. Patent Number 7,224,668 (“the ’668 Patent”).

2. I have been retained on behalf of Arista Networks, Inc. (“Arista”). My compensation is not based on the outcome of my opinions.

3. I have reviewed the ’668 Patent, including the claims of the patent in view of the specification and the file history. In addition, I have reviewed the following documents:

- U.S. Patent No. 6,674,743 (“Amara”)
- U.S. Patent No. 6,970,943 (“Subramanian”)
- U.S. Patent No. 6,460,146 (“Moberg”)
- U.S. Patent No. 6,115,378 (“Hendel”)
- IETF RFC 2661, “Layer Two Tunneling Protocol ‘L2TP’,” retrieved from <http://www.rfc-editor.org/rfc/rfc2661.txt> (“IETF RFC 2661”)
- 3Com CoreBuilder 3500 Implementation Guide, 3Com MSD Technical Publications, November 1999 (“CoreBuilder”)

4. My curriculum vitae (“CV”) is provided as an Exhibit.

5. I received a Bachelor of Science in Electrical Engineering and Computer Sciences from University of California, Berkeley in May 1985; a Masters of Science in Electrical Engineering and Computer Sciences from the University of California, Berkeley in May 1988; and a Ph.D. in Electrical Engineering and Computer Sciences from the University of California, Berkeley in May 1991.

6. I served as the Head of Research of the Systems Control and Communications Group of IMEC Research Laboratory, Leuven, Belgium from February, 1992 – December, 1996.

Declaration of Dr. Bill Lin  
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I also have served or am currently serving as Associate Editor or Guest Editor on 2 ACM or IEEE journals, an Associate Editor on the International Journal of Embedded Systems, as General Chair on 4 ACM or IEEE conferences, on the Organizing or Steering Committees for 6 ACM or IEEE conferences, and on the Technical Program Committees of over 40 ACM or IEEE conferences.

7. I am a named inventor on five patents in the field of computer networking, and have published over 160 journal articles and conference papers in top-tier venues and publications.

8. The '668 Patent issued from U.S. application number 10/307,154, which was filed on November 27, 2002. The '668 Patent does not include a priority claim. It is therefore my understanding that the filing date of November 27, 2002 (hereinafter the "Critical Date") represents the earliest possible priority date to which the '668 Patent is entitled.

9. A person of ordinary skill in the art as of the Critical Date (hereinafter a "POSITA") would have had a Masters of Science Degree (or a similar technical Masters Degree, or higher degree) in an academic area emphasizing computer networking or, alternatively, a Bachelor Degree (or higher degree) in an academic area emphasizing the design of electrical, computer, or software engineering with several years of experience in computer network engineering and the design of computer networks. Additional education in a relevant field, such as computer science, computer engineering, or electrical engineering, or industry experience may compensate for a deficit in one of the other aspects of the requirements stated above.

10. I am familiar with the knowledge and capabilities of one of ordinary skill in these areas, and notably with designing computer communications networks and computer architecture problems, including the design of data networks, high-performance switches and routers, many-

core processors and systems-on-chip, and ASIC chip designs and studying their interaction with people in experimental and real-world environments. Specifically, my experience working with industry, with undergraduate and post-graduate students, with colleagues from academia, and with engineers practicing in industry has allowed me to become directly and personally familiar with the level of skill of individuals and the general state of the art. Unless otherwise stated, my testimony below refers to the knowledge of one of ordinary skill in the fields as of the Critical Date, or before.

11. This declaration is organized as follows:
  - I. Brief Overview of the '668 Patent (pg. 4)
  - II. Terminology (pg. 7)
  - III. Discussion of References (pg. 12)
  - IV. Legal Principles (pg. 48)
  - VII. Additional Remarks (pg. 49)

**I. Brief Overview of the '668 Patent**

12. The '668 patent describes an internetworking device, such as a router, that routes packets received at the device towards their destination. An internetworking device 100 of the '668 patent is illustrated in Figure 1:

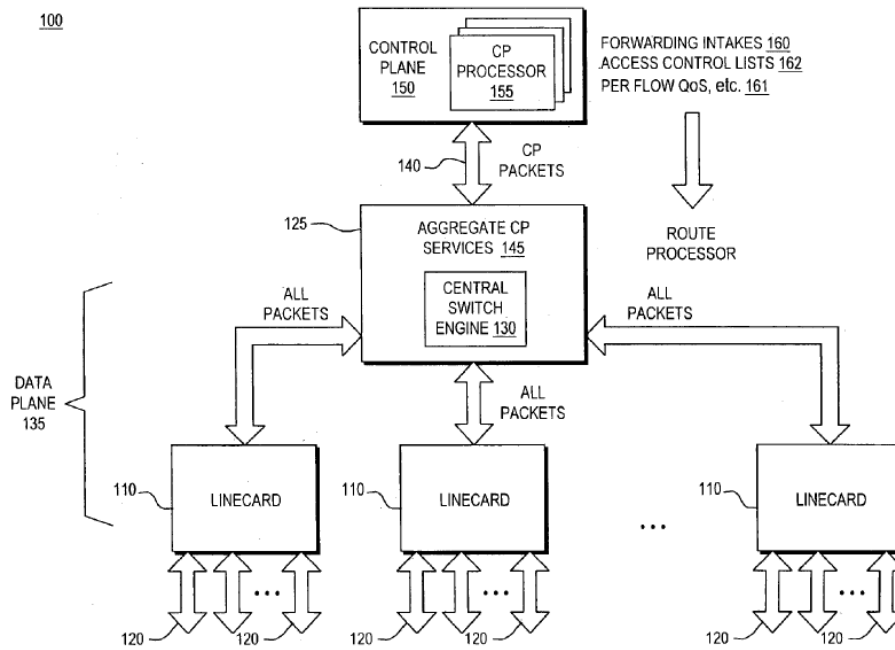


FIG. 1

13. The internetworking device 100 includes two logical components: a data forwarding plane 135 (i.e., data plane) and a control plane 150. The '668 Patent at 3:22-34; 5:5-21. The data plane 135 is composed of physical interface ports 120, line cards 110, and a central switch engine 130. *Id.* at 5:5-9. The data plane 135 passes along, or “forwards,” packets received at the port interfaces 120 toward their ultimate destination. *Id.* at 1:54-56; 3:23-26; 5:8-9. The control plane 150 is “a collection of processes” 155 and is responsible for higher layer functions of the device, such as control and configuration of the internetworking device 100. *Id.* at 1:56-59; 3:26-31; 4:58-61; 5:10-23.

14. The internetworking device 100 applies port services to packets passing through the internetworking device 100. *Id.* at 6:1-44; 6:67-7:14. Port services are a set of policies or rules that are applied to the packets. *Id.* at 4:3-8; 6:4-7; 6:24-27; 9:1-4. Port services may include Quality of Service processing or packet rate-limiting. *Id.* at 4:6-8; 6:4-23. For example, “one policy may be to rate limit Telnet SYN packets to a specific rate that is a tolerable rate

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