

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re *inter partes* review of:

U.S. Patent 7,224,668 to Smethurst

Filed: November 27, 2002

For: **Control plane security and traffic
flow management**

Atty. Docket: 3674.001IPR2

IPR2016-00309

**Declaration of Dr. Kevin C. Almeroth in Support of
Patent Owner Response**

Mail Stop PATENT BOARD

Attn: Patent Trial and Appeal Board

Commissioner for Patents

PO Box 1450

Alexandria, VA 22313-1450

Commissioner:

I, Dr. Kevin Almeroth, declare as follows:

1. I have been retained on behalf of Patent Owner, Cisco Systems, Inc. (“Cisco”), for the above-captioned Patent Owner Response. I understand that this proceeding involves U.S. Patent No. 7,224,668 (hereinafter referred to as “the ’668 patent” or “Ex. 1001”) titled “Control plane security and traffic flow management” by Adrian Smethurst *et al.* and that the ’668 patent is currently assigned to Cisco Systems, Inc.

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2. In forming my opinions expressed in this declaration, I have considered and relied upon my education, background, and experience. I have also reviewed and relied upon the following list of materials in preparation of this declaration, and any other cited reference in this declaration:

1. Petition for *Inter Partes* Review of claims 1–10, 12, 13, 15–28, 30, 31, 33–43, 48, 49, 51–64, 66, 67, and 69–72 of the '668 patent;
2. Declaration of Dr. Bill Lin (Exhibit 1002)
3. U.S. Patent No. 6,674,743 (“Amara”) (Exhibit 1004)
4. U.S. Patent No. 6,460,146 (“Moberg”) (Exhibit 1005)
5. U.S. Patent No. 6,970,943 (“Subramanian”) (Exhibit 1006)
6. U.S. Patent No. 6,115,378 (“Hendel”) (Exhibit 1007)
7. IETF RFC 2661, “Layer Two Tunneling Protocol ‘L2TP’” (“IETF RFC 2661”) (Exhibit 1008)
8. File History of U.S. Patent No. 7,224,668 (Exhibit 1011)
9. April 16, 2015 Edelin Letter, 337-TA-944 and 945 (Exhibit 2001)
10. ANI-ITC-994_945-1824690, CoreBuilder Command Reference Guide, 337-TA-944 and 945 (Exhibit 2002)
11. May 12, 2015 Edelin Letter, 337-TA-944 and 945 (Exhibit 2003)
12. ANI-ITC-944_945-3444425, CoreBuilder 9000 Implementation Guide, 337-TA-944 and 945 (Exhibit 2004)
13. Deposition Transcript of Bill Lin, August 23, 2016 (Exhibit 2005)
14. Control Plane Security and Quality of Service Functional Specification, Cisco Systems, July 19, 2002 (Protective Order Material) (Exhibit 2009)

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15. Assignment of U.S. Patent Appl. No. 09/205,577, Reel/Frame No. 009749/0391 (Exhibit 2013)
16. Assignment of U.S. Patent Appl. No. 10/307,154, Reel/Frame No. 013540/0810 (Exhibit 2014)
17. '668 Patent Copying Claim Chart (Exhibit 2015)
18. Control Plane Policing Implementation Best Practices, Cisco Systems, November 11, 2014 (Exhibit 2016)
19. Cisco Nexus 7000 Series NX-OS Security Config. Guide, Release 6.x, Cisco Systems, First Published July 27, 2012, Last Modified April 16, 2014 (Exhibit 2017)
20. Cisco IOS Software Configuration Guide, Release 12.2(33)SXH, Cisco Systems (Exhibit 2018)
21. Infrastructure Protection on Cisco IOS Software-Based Platforms, Cisco Systems, 2006 (Exhibit 2019)
22. Cisco Nexus 7000 Series NX-OS Quality of Service Configuration Guide, Cisco Systems, April 2014 (Exhibit 2020)
23. Cisco IOS Quality of Service Solutions Configuration Guide, Release 12.2 (Exhibit 2021)
24. Deploying Control Plane Policing, Cisco Systems, 2005 (Exhibit 2022)
25. CoPP on Nexus 7000 Series Switches, Viral Bhutta, Cisco TAC Engineer, September 4, 2014 (Exhibit 2023)
26. Arista Configuration Guide v. 4.14.3F - Rev. 2, Arista Networks, October 2, 2014 (Exhibit 2024)
27. Arista 7508E Image, accessed at <http://www.arista.com/assets/images/product/7508-specifications.png> on September 16, 2014 (Exhibit 2025)
28. Arista White Paper, Arista 7500 Switch Architecture, March 2014 (Exhibit 2026)

29. Gary A. Donahue, *Arista Warrior*, O'Reilly, 2013 (Exhibit 2027)
30. Cisco Nexus 5000 Series NX-OS Security Configuration Guide, Cisco Systems, First Published December 5, 2011, Last Modified December 28, 2011 (Exhibit 2028)
31. Security Configuration Guide: Securing the Control Plane, Cisco IOS Release 15.1M&T, Cisco Systems, 2010 (Exhibit 2029)
32. Configuring Control Plane Policing, Cisco Nexus 5000, Cisco Systems (Exhibit 2030)
33. Arista EOS 4.15.3F User Manual, Arista Networks, November 20, 2015 (Exhibit 2031)
34. Examples of Arista's Copying of Cisco's Command Expressions (Exhibit 2032)
35. Cisco's Motion for Partial Summary Judgment, *Cisco v. Arista*, Case No. 5:14-cv-5344-BLF (PSG) (Exhibit 2033)
36. An Ex-Cisco Exec Reflects, Adam Lashinsky, *Fortune*, March 20, 2014 (Exhibit 2034)
37. How Arista Networks Got Out in Front of the SDN Craze, John Gallant, *NetworkWorld*, February 22, 2013 (Exhibit 2035)
38. Linux as a Switch Operating System: Five Lessons Learned, Kenneth Duda, Arista Networks (Exhibit 2036)
39. EOS – Industry Standard CLI (Exhibit 2037)
40. 3Com Switch 4500 Quick Reference Guide (Exhibit 2038)
41. Avaya Ethernet Routing Switch 3500 Series, 2015 (Exhibit 2039)
42. ArubaOS_6.1 Command Line Interface, Aruba Networks, 2011 (Exhibit 2040)
43. SANS Institute Report, *The Changing Face of Distributed Denial of Service Mitigation*, 2001 (Exhibit 2041)

44. Trends in Denial of Service Attack Technology, CERT® Coordination Center, 2001 (Exhibit 2042)
45. Arista - Management Team, Arista Networks, 2016 (Exhibit 2043)
46. Cisco Sues Arista, a Rival Run by Former Cisco Employees, Julie Bort, Business Insider, December 6, 2014 (Exhibit 2044)
47. Complaint for Copyright and Patent Infringement, Cisco v. Arista, Case No. 5-14-cv-05344 (Exhibit 2045)
48. Exemplary Prior Conception Claim Chart (Protective Order Material) (Exhibit 2047)

3. I have been asked to provide my technical review, analysis, insights, and opinions regarding the '668 patent and the above-noted references.

I. Qualifications

4. I hold three degrees from the Georgia Institute of Technology: (1) a Bachelor of Science degree in Information and Computer Science (with minors in Economics, Technical Communication, American Literature) earned in June, 1992; (2) a Master of Science degree in Computer Science (with specialization in Networking and Systems) earned in June, 1994; and (3) a Doctor of Philosophy (Ph.D.) degree in Computer Science (Dissertation Title: Networking and System Support for the Efficient, Scalable Delivery of Services in Interactive Multimedia System, minor in Telecommunications Public Policy) earned in June, 1997.

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