UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PALO ALTO NETWORKS, INC.,

Petitioner,

v.

CENTRIPETAL NETWORKS, INC.,

Patent Owner.

Case IPR2022-00182

U.S. Patent No. 9,917,856

DECLARATION OF JONATHAN BRADFORD IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW OF UNITED STATES PATENT NO. 9,917,856

1. I, Jonathan Bradford, make the following Declaration pursuant to 28 U.S.C. § 1746: I am a Senior IP Paralegal at the law firm of Ropes & Gray LLP.

2. I provide this Declaration in connection with the above-identified *Inter Partes* Review proceeding that is before the United States Patent and Trademark Office ("USPTO"). Unless otherwise stated, the facts stated in this Declaration are based on my personal knowledge.

3. EX1001 is a true and correct copy of U.S. Patent No. 9,917,856 ("'856"), which was obtained from the USPTO's Public Patent Application Information Retrieval ("Public PAIR") system. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

4. EX1002 is a true and correct copy of File History of U.S. Patent No. 9,917,856 ("'856 FH"), which was obtained from the USPTO's Public Patent Application Information Retrieval ("Public PAIR") system. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

5. EX1004 is a true and correct copy of U.S. Patent No. 9,680,795 ("Buruganahalli"), which was obtained from the USPTO's Public Patent

Application Information Retrieval ("Public PAIR") system. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

6. EX1005 is a true and correct copy of U.S. Patent No. 5,878,231 ("Baehr"), which was obtained from the USPTO's Public Patent Application Information Retrieval ("Public PAIR") system. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

7. EX1007 is a true and correct copy of Barry M. Leiner et al., "A Brief History of the Internet," Internet Society, 1997, available at: https://www.internetsociety.org/internet/history-internet/brief-history-internet/ ("Leiner"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

8. EX1008 is a true and correct copy of U.S. Pat. No. 7,032,031 ("Jungck '06"), which was obtained from the USPTO's Public Patent Application Information Retrieval ("Public PAIR") system. This document has been marked

with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

9. EX1009 is a true and correct copy of E. H. Spafford, "The Internet Worm Program: An Analysis," Purdue Technical Report CSD-TR-823, 1988. ("Spafford"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

10. EX1010 is a true and correct copy of Eichin, M.W. and Rochlis, J.A., "With Microscope and Tweezers: The Worm from MIT's Perspective," Communications of the ACM, Volume 32 Number 6, June 1989 ("Eichin"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

11. EX1011 is a true and correct copy of T. Eisenberg et al., "The Cornell Commission: On Morris and the Worm," Communications of the ACM, Volume 32 Number 6, June 1989 ("Eisenberg"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at

the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

12. EX1012 is a true and correct copy of J. C. Mogul, "Simple and Flexible Datagram Access Controls for Unixbased Gateways," Digital Western Research Laboratory Technical Report No. 89/4, 1989 ("Mogul"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

13. EX1013 is a true and correct copy of "FireWall-1 User Interface from 3.0," PhoneBoy's Security Theater, archived at the Internet Archive Wayback Machine on January 2, 2014 at https://web.archive.org/web/20140102143305/http://phoneboy.net/ ("FireWall-1"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

14. EX1014 is a true and correct copy of "SonicWALL Global Management System: Centralized Network Monitoring and Management Solution", 2008, archived at the Internet Archive Wayback Machine on December 7, 2008 at https://web.archive.org/web/20081207003303/http:/www.sonicwall.com/download

s/EC_GMS_DS_US.pdf ("SonicWALL GMS"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

15. EX1015 is a true and correct copy of "SonicWALL ViewPoint 6.0 Administrator's Guide", 2010, archived at the Internet Archive Wayback Machine on August 21, 2010 at https://web.archive.org/web/20100821022839/http://www.sonicwall.com:80/downloads/SonicWALL_ViewPoint_6_0_Admin_Guide.pdf ("SonicWALL ViewPoint"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

16. EX1016 is a true and correct copy of Heberlein, L. T., et al., "A Network Security Monitor," Proceedings, 1990 IEEE Computer Society Symposium on Security and Privacy, 1990 ("Heberlein"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

17. EX1017 is a true and correct copy of "NetRanger Network Security Management System User Guide". v1.3.1 Wheelgroup Corporation, 1997 ("NetRanger"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

18. EX1018 is a true and correct copy of Roesch, M., "Snort: Lightweight Intrusion Detection for Networks," Lisa (Vol. 99, No. 1, pp. 229-238), 1999 ("Roesch"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

19. EX1019 is a true and correct copy of U.S. Pat. No. 8,370,936 ("Zuk"), which was obtained from the USPTO's Public Patent Application Information Retrieval ("Public PAIR") system. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

20. EX1020 is a true and correct copy of W32.hllw.Doomjuice Technical Description, Symantec Security Center, updated February 13, 2007, available at: https://www.symantec.com/security-center/writeup/2004-020909-2916-99

("Doomjuice"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

21. EX1021 is a true and correct copy of "(Vendor Issues Fix) Re: Helix Universal Server and RealServer URL Parsing Flaw in View Source Plug-in Lets Remote Users Execute Arbitrary Code with Root Privileges" Security Tracker, September 13, 2003, available at: https://securitytracker.com/id/1007692 ("Helix"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

22. EX1022 is a true and correct copy of "Transmission Control Protocol," IETF RFC 793. J. Postel, ed., September 1981, archived at Internet Archive Wayback Machine on February 2, 2007 at https://web.archive.org/web/20070202201546/https://tools.ietf.org/html/rfc793 ("RFC 793"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

23. EX1023 is a true and correct copy of "Internet Protocol," IETF RFC 791, J. Postel, ed., September 1981, archived at Internet Archive Wayback Machine on February 4, 2007 at https://web.archive.org/web/20070204151303/https://tools.ietf.org/html/rfc791, which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

24. EX1024 is a true and correct copy of "File Transfer Protocol," IETF RFC 765, J. Postel, ed., June 1980, archived at Internet Archive Wayback Machine on February 6, 2007 at https://web.archive.org/web/20070206005843/https://tools.ietf.org/html/rfc765 ("RFC 765"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

25. EX1025 is a true and correct copy of T. B. Lee, "The Original HTTP as defined in 1991," World Wide Web Consortium, 1991, archived at Internet Archive Wayback Machine on June 5, 1997 at https://web.archive.org/web/19970605071155/https://www.w3.org/Protocols/HTTP/AsImplemented.html ("T.B. Lee"), which was obtained at my direction. This

document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

26. EX1026 is a true and correct copy of *Cisco System Inc. v. Centripetal Networks, Inc.*, IPR2018-01760, Paper 41 (PTAB May 18, 2020), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

27. EX1027 is a true and correct copy of *Centripetal Networks, Inc. v. Cisco Systems, Inc.*, Case No. 2:18-cv- 00094 (E.D. Va.), Dkt. No. 621 (Opinion and Order Regarding Findings of Fact and Conclusions of Law), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

28. EX1028 is a true and correct copy of *Centripetal Networks, Inc. v. Cisco Systems, Inc.*, Case 2021-1888 (Fed. Cir.), Dkt. No. 18 (Non-Confidential Brief for Defendant-Appellant Cisco Systems, Inc.), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

29. EX1029 is a true and correct copy of *Centripetal Networks, Inc. v. Cisco Systems, Inc.*, Case No. 2:18-cv-00094 (E.D. Va.), Dkt. No. 548 (June 10, 2020 Trial Transcript), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

30. EX1030 is a true and correct copy of *Centripetal Networks, Inc. v. Keysight Techs., Inc.*, Case No. 2:17-cv-383 (E.D. Va.), Dkt No. 484 ("Keysight Markman"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

31. EX1031 is a true and correct copy of S. Turner & C. Polk, "Prohibiting Secure Sockets Layer (SSL) Version 2.0," IETF RFC 6176, March 2011, archived at Internet Archive Wayback Machine on March 18, 2011 at https://web.archive.org/web/20110318184421/https://tools.ietf.org/html/rfc6176 ("Turner"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

32. EX1032 is a true and correct copy of I. Ristic, "SSL/TLS and PKI History," April 2018, available from https://www.feistyduck.com/ssl-tls-and-pki-history/ ("Ristic"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

33. EX1033 is a true and correct copy of U.S. Pat. Appl. Pub. No. 2007/0271605 ("Le Pennec"), which was obtained from the USPTO's Public Patent Application Information Retrieval ("Public PAIR") system. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

34. EX1034 is a true and correct copy of U.S. Patent No. 8,504,822 ("Wang"), which was obtained from the USPTO's Public Patent Application Information Retrieval ("Public PAIR") system. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

35. EX1035 is a true and correct copy of U.S. Patent No. 7,793,342 ("Ebrahimi"), which was obtained from the USPTO's Public Patent Application

Information Retrieval ("Public PAIR") system. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

36. EX1036 is a true and correct copy of J. Wack et al., *Guidelines on Firewalls and Firewall Policy*, National Institute of Standards and Technology ("NIST"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

37. EX1037 is a true and correct copy of U.S. Patent No. 8,813,228 ("Magee"), which was obtained from the USPTO's Public Patent Application Information Retrieval ("Public PAIR") system. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

38. EX1040 is a true and correct copy of U.S. Patent Appl. Pub. No. 2014/0283004 ("Moore"), which was obtained from the USPTO's Public Patent Application Information Retrieval ("Public PAIR") system. This document has been marked with an exhibit label and page numbers on each page at the bottom

right corner. However, no alterations, other than these noted markings, have been made to this document.

39. EX1041 is a true and correct copy of U.S. Patent Appl. Pub. No. 2015/0207809 ("Macaulay"), which was obtained from the USPTO's Public Patent Application Information Retrieval ("Public PAIR") system. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

40. EX1042 is a true and correct copy of U.S. Patent Appl. Pub. No. 2014/0089661 ("Mahadik"), which was obtained from the USPTO's Public Patent Application Information Retrieval ("Public PAIR") system. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

41. EX1043 is a true and correct copy of U.S. Patent No. 7,849,502 ("Bloch"), which was obtained from the USPTO's Public Patent Application Information Retrieval ("Public PAIR") system. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

42. EX1044 is a true and correct copy of U.S. Patent No. 7,584,352 ("Boivie"), which was obtained from the USPTO's Public Patent Application Information Retrieval ("Public PAIR") system. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

43. EX1045 is a true and correct copy of Young-Ho Kim, et al., "Design of Firewall in Router using Network Processor," IEEE, Jul. 11, 2005 ("Kim"), available from https://ieeexplore.ieee.org/abstract/document/1461962 ("Kim"), which was obtained at my direction. This document has been marked with an exhibit label and page numbers on each page at the bottom right corner. However, no alterations, other than these noted markings, have been made to this document.

44. Certain pages have been resized to 8.5 x 11 inches. No content was removed by this resizing.

45. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further 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 18 U.S.C. § 1001. If called to testify as to the truth of the matters stated herein, I could and would testify competently.

46. I declare under penalty of perjury that the foregoing is true and correct.

Executed this 18th day of November, 2021, in Boston, Massachusetts.

/Jonathan Bradford/
Jonathan Bradford
ROPES & GRAY LLP