IN THE

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD
_____

SYMANTEC CORPORATION,

Petitioner

- vs. -

THE TRUSTEES OF COLUMBIA UNIVERSITY
IN THE CITY OF NEW YORK,

Patent Owner
_____

Patent No. 8,074,115
Issued: December 6, 2011
Inventors: Salvatore J. Stolfo, Angelos D. Keromytis, and Stelios Sidiroglou
Title: METHODS, MEDIA AND SYSTEMS FOR DETECTING ANOMALOUS
PROGRAM EXECUTIONS

Inter Partes Review No. 2015-00375

EXHIBIT LIST
_____

Mail Stop Patent Board
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P.O. Box 1450
Alexandria, VA 22313-1450

Petitioner's Exhibit List

Exhibit	Description
1001	U.S. Patent No. 8,074,115
1002	File History of U.S. Patent No. 8,074,115
1003	Declaration of Michael T. Goodrich, Ph.D.
1004	Curriculum vitae of Michael T. Goodrich, Ph.D.
1005	*The Trustees of Columbia University in the City of New York v. Symantec Corp.*, Civil Action No. 3:13-cv-808, Oct. 7, 2014 Claim Construction Order (Dkt. No. 123)
1006	*The Trustees of Columbia University in the City of New York v. Symantec Corp.*, Civil Action No. 3:13-cv-808, Oct. 23, 2014 Claim Construction Order (Dkt. No. 146)
1007	U.S. Patent No. 5,440,723 ("Arnold")
1008	U.S. Patent No. 8,108,929 ("Agrawal")
1009	McGraw-Hill Dictionary of Scientific and Technical Terms (5th ed. 1994)
1010	U.S. Patent Application No. 2005/0208562 ("Khazan")
1011	U.S. Patent No. 7,334,005 ("Sobel")
1012	Declaration of Michael J. Sacksteder in Support of Symantec Corporation's Unopposed Motion for *Pro Hac Vice* Admission
1013	Deposition transcript of Mr. Scott Lewandowski
1014	Deposition transcript of George Cybenko, Ph.D.
1015	Supplemental Declaration of Michael T. Goodrich, Ph.D.
1016	Galen Hunt, et al., "Detours: Binary Interception of Win32 Functions," Proceedings of the 3rd USENIX Windows NT Symposium, Seattle, WA, July 1999
1017	Expert Report of Professor Michael Bailey in *The Trustees of Columbia University in the City of New York v. Symantec Corp.*, Civil Action No. 3:13-cv-808, (October 17, 2014) (excerpt)

Patent Owner's Exhibit List

Exhibit	Description
2001	Sheasby Declaration ISO *pro hac vice* motion
2002	Declaration of Professor Douglas C. Szajda in *The Trustees of Columbia University in the City of New York v. Symantec Corp.*, Civil Action No. 3:13-cv-808, Dkt. No. 106-1 (August 15, 2014)
2003	Expert Report of Dr. Richard Ford Regarding Invalidity of U.S. Patent Nos. 7,448,084, 7,913,306, 8,074,115 & 8,601,322 in *The Trustees of Columbia University in the City of New York v. Symantec Corp.*, Civil Action No. 3:13-cv-808 (October 17, 2014) (excerpt)
2004	Expert Report of Dr. Trent Jaeger Regarding Invalidity of U.S. Patent Nos. 7,487,544 & 7,979,907 in *The Trustees of Columbia University in the City of New York v. Symantec Corp.*, Civil Action No. 3:13-cv-808, (October 17, 2014) (excerpt)
2005	McGraw-Hill Dictionary of Scientific and Technical Terms (6th ed. 2003), p 108
2006	Schölkopf, B. *et al.*, "Estimating the Support of a High-Dimensional Distribution," Microsoft Research Technical Report MSR-TR-99-87 (Nov. 27, 1999, revised Sept. 18, 2000), available at http://research.microsoft.com/pubs/69731/tr-99-87.pdf (last visited 4/1/2015)
2007	Rebecca G. Bace, Intrusion Detection (MacMillian Technical Publishing, 2000) (excerpt), same as Ex. 1007 of IPR2015-00372
2008	Declaration of Michael T. Goodrich, Ph.D. in Support of Petition for *Inter Partes* Review of U.S. Patent No. 7,448,084 (IPR2015-00372, Exhibit 1003)
2009	Carey Nachenberg on-line profile, available from http://www.symantec.com/about/news/resources/press_kits/bios/bio.jsp ? bioid=carey_nachenberg

Exhibit	Description
2010	Deposition transcript of Carey Nachenberg in *The Trustees of Columbia University in the City of New York v. Symantec Corp.*, Civil Action No. 3:13-cv-808 (Sept. 26, 2014) (excerpt)
2011	*The Trustees of Columbia University in the City of New York v. Symantec Corp.*, No. 2015-1146 (Fed. Cir.), Opening Brief by Columbia University (Jan. 20, 2015)
2012	Richard Stallman *et al.*, Debugging with GDB (9th Edition) (excerpt)
2013	Deposition transcript of Carey Nachenberg in *The Trustees of Columbia University in the City of New York v. Symantec Corp.*, Civil Action No. 3:13-cv-808 (Sept. 24, 2014) (excerpt)
2014	Roget's 21st Century Thesaurus (1992), p. 694
2015	US Patent No. 7,487,544
2016	Jude Shavlik *et al.*, "Evaluating Software Sensors for Actively Profiling Windows 2000 Computer Users" (RAID 2001), same as Exhibit 1006 of IPR2015-00372
2017	Wang, K., Parekh, J. J. & Stolfo, S. J., "Anagram: A Content Anomaly Detector Resistant to Mimicry Attack," Columbia University Technical Report, available from https://mice.cs.columbia.edu/getTechreport.php?techreportID=403&format=pdf& (last visited 4/1/2015)
2018	American Heritage Dictionary of the English Language (4th ed. 2000) (excerpt)
2019	Intentionally not used
2020	Intentionally not used
2021	Intentionally not used

Exhibit	Description
2022	Intentionally not used
2023	Intentionally not used
2024	Microsoft Computer Dictionary, Fifth Edition, 2002, p. 424
2025	McGraw-Hill Dictionary of Scientific and Technical Terms, Sixth Edition, 2003, p. 1358
2026	Microsoft Computer Dictionary, Fifth Edition, 2002, p. 229
2027	VMWare, What is virtualization? Virtualization 101	United States, http://www.vmware.com/virtualization/how-it-works.html (last visited Sept. 27, 2015)
2028	United States Provisional Patent Application 60/730,289
2029	Deposition Transcript of Dr. Michael T. Goodrich taken Sept. 28, 2015 and Sept. 30, 2015 in IPR2015-00375 and IPR2015-00377
2030	Declaration of Prof. George Cybenko
2031	Declaration of Scott M. Lewandowski
2032	Stelios Sidiroglou-Douskos Homepage, http://people.csail.mit.edu.edu/stelios (last visited Oct. 7, 2015)
2033	Eric Fosler-Lussier, *Markov Models and Hidden Markov Models: A Brief* Tutorial, TR-98-041, December 1998, http://di.ubi.pt/~jpaulo/competence/tutorials/hmm-tutorial-1.pdf.
2034	2028 United States Provisional Patent Application 60/730,289 2029 Deposition Transcript of Dr. Michael T. Goodrich taken Sept. 28, 2015

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