

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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GOOGLE LLC,  
Petitioner,

v.

NETWORK-1 TECHNOLOGIES, INC.,  
Patent Owner.

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Case IPR2015-00348  
U.S. Patent No. 8,656,441

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**PETITIONER'S UPDATED EXHIBIT LIST**

**EXHIBIT LIST**

- 1001** U.S. Patent No. 8,656,441 to Cox
- 1002** Prosecution History of U.S. Patent No. 8,656,441
- 1003** Visual Summary of Petition Grounds
- 1004** December 3, 2014 Declaration of Dr. Pierre Moulin
- 1005** Curriculum Vitae of Dr. Pierre Moulin
- 1006** Sunil Arya, et al., "An Optimal Algorithm for Approximate Nearest Neighbor Searching in Fixed Dimensions" ("Arya")
- 1007** Christian Böhm, et al., "Efficient Similarity Search in Digital Libraries" ("Böhm")
- 1008** U.S. Patent No. 7,444,353 ("Chen")
- 1009** U.S. Patent No. 6,970,886 ("Conwell")
- 1010** U.S. Patent No. 5,874,686 ("Ghias")
- 1011** U.S. Patent No. 6,597,405 ("Iggulden")
- 1012** U.S. Patent No. 6,188,010 ("Iwamura")
- 1013** U.S. Patent No. 6,505,160 ("Levy")
- 1014** U.S. Patent No. 6,098,106 ("Philyaw")
- 1015** U.S. Patent No. 7,743,092 ("Wood")
- 1016** Prosecution History of U.S. Patent App. No. 09/438,469
- 1017** Timo Raita, "Tuning the Boyer–Moore–Horspool String Searching Algorithm"
- 1018** Aristides Gionis, et al., "Similarity Search in High Dimensions via Hashing"
- 1019** Plaintiff Network-1 Technologies, Inc.'s Responses to Defendants Google, Inc. and YouTube, LLC's First Set of Interrogatories (Nos.

1–4) in *Network-1 Technologies, Inc. v. Google, Inc., et al.*  
(S.D.N.Y. Case No. 14-cv-2396-PGG)

- 1020** Transcript of the November 12, 2015 Deposition of Dr. George Karypis
- 1021** U.S. Patent No. 8,010,988 to Cox
- 1022** Petitioner’s Demonstratives
- 1023** Joint Stipulation between Network-1 and Google

## **CERTIFICATE OF SERVICE**

The undersigned hereby certifies that the above-captioned *Petitioner's Updated Exhibit List* was served on December 21, 2018 by filing this document through the Patent Review Processing System as well as delivering a copy via electronic mail upon the following attorneys of record for the Petitioner:

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