UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AMERICAN EXPRESS COMPANY, AMERICAN EXPRESS TRAVEL RELATED SERVICES COMPANY, INC., EXPEDIA, INC., HOTELS.COM LP. HOTELS.COM GP, LLC, HOTWIRE, INC., ORBITZ WORLDWIDE, INC., PRICELINE.COM, INC., TRAVELOCITY.COM LP, and YAHOO! INC.

Petitioner,

v.

METASEARCH SYSTEMS, LLC, Patent Owner

Case CBM2014-00001 Patent 8,326,924

SUPPLEMENTAL DECLARATION OF GARY LIAO IN SUPPORT OF PETITION FOR POST-GRANT REVIEW OF A COVERED BUSINESS METHOD UNDER 35 U.S.C. § 321 AND AIA, § 18



- 1. My name is Gary Liao. I am currently President and owner of WhereExactly, Inc., an Oregon Corporation founded in 2005, providing software consulting, computer and software forensics, and location specific advertising services. I have a Bachelor of Science degree in Electrical Engineering from University of California, San Diego (1988), and a Master of Business Administration degree from Portland State University (1999).
- 2. I have spent the last 25 years working either as a software engineer, or as a consultant focused on analyzing software. From 1988 to 2005, I worked for a range of companies as a software engineer including Advanced Micro Devices, The Scripps Research Institute, Biosym Technologies, Charles Schwab & Co., Inc., Integrated Surgical Systems, Inc., DAT Services, Inc., Intel Corp., Step Technology, Webridge, Inc., and SoftSource Consulting. In 2005, I started my own internet advertising and consulting company, WhereExactly, Inc.
- 3. In 1996, I designed and implemented a message oriented middleware protocol for a distributed database client-server Internet based application.

 Through 1999, I was the technical lead providing architectural guidance and/or software developer for e-commerce stores including model.com, clique.com, forbes.clique.com, animalfairboutique.com, skinet.clique.com, gear.com, danner.com, and 800.com. These various websites provided e-commerce functionality using various technologies including Microsoft Site Server



Commerce Edition, Microsoft SQL Server, and Cybercash for credit card transactions. I was also the technical lead and architect for the Oregon Department of Fish and Wildlife (ODFW) Point of Sale (POS) system. This project enabled the sale of all Oregon Department of Fish and Wildlife fishing and hunting licenses, tags, parking permits, and raffle tickets throughout the state of Oregon. This system utilized a 3-tier client-server architecture over the Internet with each client computer utilizing an Internet Browser at all Point-of-sale locations to conduct the transactions to a central server. Through 2004, I joined an Internet startup, Webridge. As the name suggests, Webridge provided technology using the Web (Internet) to create a Bridge between businesses and consumers, and between businesses and businesses. Among other tasks, I was tasked to incorporate various technologies into the product solutions including Microsoft Commerce Server 2000 and Biztalk Server. Webridge, as well as many other technology companies of the early 2000's, struggled to address the challenges of scale; how to increase the number of client computers and still provide adequate performance. So, I am well aware of the technical challenges for accomplishing scale at that time. Currently, I provide Internet advertising and consulting services. I provide Search Engine Optimization (SEO) and other consulting services to various websites and currently provide software development consulting services to Johns Hopkins University School of Medicine, Johns Hopkins University School of Public Health,



Huron Consulting Group, and Ochsner Health Systems, and I provide litigation consulting services for a number of clients as well.

- 4. Based on the above experience and qualifications, I have a solid understanding of the knowledge and perspective of a person of ordinary skill in this technical field in 1999-2001.
- 5. I am being compensated for my time spent in connection with this matter at my standard consulting rate of \$150/hr. I have no financial interest in the outcome of the related litigations or this proceeding.

Knowledge Broker was a Metasearch Engine

6. The opinions that follow in this section are responsive to the Patent Owner's contention that Knowledge Broker was not a metasearch engine.

Knowledge Broker was a metasearch engine by definition using either the Board's Preliminary Construction or the Patent Owner's Proposed Construction for metasearching. The definition I used for metasearch engine is an application or other instructions on a hardware device that performs metasearching as defined below (CBM2014-00001 – Patent Owner's Response to Petition, p. 25):



Board's Preliminary	Patent Owner's Proposed
Construction	Construction
[sending] an unstructured keyword query or queries to plural hosts, as requested by a user, and grouping, sorting, and returning to the user the results received from each host	sending at least one search query to plural hosts, and returning the results received from each host

7. Exhibit 1006, "Constraint-based Information Gathering for a Network Publication System," and Exhibit 1007, "Agent-Based Document Retrieval for the European Physicists: A Project Overview," together describe both a "framework" with varied applications as well as a particular example of an "application environment, namely the Physicists Network Publishing System (PNPS), that serves as a testbed for the knowledge broker framework." (Ex 1006, p. 4.) Also, in this example application, the "CBKB system acts as a front-end to a printing-ondemand system, originally called Physicists Network Publishing System (PNPS)." (Ex 1007, p. 4.) In part, it is this exemplary application environment, including but not limited to the web query interface, brokers, wrappers, constraints, data repositories (aka search engines), and integration with print service backend, which is also described as "a uniform meta-search interface with clear semantics, developed on top of different search engines" (Ex 1007, p. 4), which I refer to as "Knowledge Broker," and which was a metasearch engine. These papers, Exhibits 1006 and 1007, describe this specific example of Knowledge Broker with



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