IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF TEXAS HOUSTON DIVISION

SUPERSPEED, LLC,

Plaintiff,

vs.

Civil Action No. 4:12-cv-01688

JURY TRIAL DEMANDED

GOOGLE, INC.,

Defendant.

FIRST AMENDED COMPLAINT

1. This is a patent infringement lawsuit brought by Plaintiff SuperSpeed, LLC ("SuperSpeed") against Google, Inc. ("Google") for infringement of United States Patents owned by SuperSpeed.

I. <u>PARTIES</u>

2. Plaintiff SuperSpeed is a Delaware corporation. SuperSpeed is the successor by merger to EEC Systems, Inc. ("EEC"). SuperSpeed's principal place of business is 327E Boston Post Road, Sudbury, Massachusetts 01776.

3. Defendant Google is a Delaware corporation. Its principal place of business is 1600 Amphitheatre Parkway, Mountain View, California 94043.

II. JURISDICTION AND VENUE

4. This complaint states claims arising under the patent laws of the United States. Plaintiff SuperSpeed asserts causes of action under 35 U.S.C. § 271 for infringement of its patent. This Court has original and exclusive subject matter jurisdiction over this claim under 28 U.S.C. §§ 1331 and 1338(a).

5. Venue is proper in this Court under 28 U.S.C. §§ 1391(b) and 1400(b). Defendant Google maintains offices in this judicial district and conducts business within this district. A substantial part of the events giving rise to this suit occurred in this district, including

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acts of infringement by Google, as well as sales and offers for sale by Google of infringing products and services.

III. <u>BACKGROUND</u>

Computer Networks And Data Caching

6. SuperSpeed and its predecessor EEC have developed and marketed software for increasing performance of computers linked together in a network. The software is designed to work in a network environment known as a shared-disk cluster. In this configuration, multiple computers can all communicate with each other and can all access data from the same data storage device or devices, such as hard disks. For example, a bank might have hundreds of computers as part of its network, some for employees handling customer service calls, others for employees running credit checks for loan applications, and so forth. Each of these computers needs access to the bank's customer's credit card records, which are stored on a series of hard disks. A shared-disk cluster permits any one of the computers to communicate across the network with the credit card database on the hard disks, retrieve records for a particular customer, and make changes that will then be available to all other users on the network.

7. Accessing data on hard disks and other mechanical storage devices is a relatively slow process. The speed of data processing operations that require regular access to data on such devices can be significantly impeded by the time required for the computer to communicate with the disk. When multiple computers are all drawing data from the same disk, the process is even slower.

8. SuperSpeed's software helps overcome this problem by permitting data "caching" in a shared-disk cluster network. "Caching" accelerates data processing operations by making a copy of frequently accessed data in the random access memory (or "RAM") of the individual computer that is using the data. A computer can access data in RAM approximately two-hundred-thousand times faster than data on a hard disk. As a result, caching can increase performance dramatically, particularly when the computer must repeatedly access the same block

of data.

Data Coherency

9. Caching in a shared-disk cluster increases data processing speed, but the possibility that more than one computer may request access to the same data at the same time creates potential problems. When different computers have individual caches with copies of the same block of data in RAM, then the system must have some method of maintaining data "coherency." If, for example, a user on one computer modifies a piece of data that is also being stored in the cache of a second computer, then the system must notify the second computer that the data in its cache is no longer valid and that it must obtain an updated copy.

10. The simplest method of maintaining data coherency is to permit only one computer on the network to access a given block of data at a time. When it is finished working with the data in its cache, it copies any changes back to the hard disk and releases the data block for access by other computers. This protects the data, but it impedes performance by forcing all but the first computer to wait for access until the first computer has completed its operation. When the first computer is only reading the data, not altering it, this wait-time is wasteful and unnecessary because data conflicts cannot arise if there have been no changes to the data.

11. To improve performance by maximizing shared access to the data, cache management software distinguishes between computers that need to modify data and those that only need to read it. The distinction is maintained through different categories of data locks. A "read lock" indicates that the data in the cache is current and accurate, but the lock is not exclusive and does not prohibit other computers on the system from also reading the data. An exclusive "write lock" indicates that the computer needs to modify the data and thus it blocks access by other computers on the network. If a computer has a read lock on a given block of data, and a second computer obtains a write lock, then the first computer's read lock must be downgraded to a "null lock," indicating that the data in the cache is not reliable and may have been updated by another computer.

The Cache Software

12. The software that implements these methods on a computer network is called cache software. The cache software is loaded on each member of the network performing caching. The cache software on each member maintains information about which computers are caching specific disk drives.

13. The cache software also must have a means for transmitting messages to the cache software on other members on the network. Using this communication channel, the cache software then coordinates locks that permit the copying and updating of data blocks both in RAM memory and on shared disks. For example, when one computer updates a data block in RAM, the other computers that could be caching this same data block must be notified that this data in their caches is invalid. This coordinated locking mechanism is used to maintain cache data consistency and coherency throughout the network.

SuperSpeed And EEC's Patents

14. SuperSpeed's predecessor in interest, EEC, was a pioneer in developing highperformance cache software for use in a shared-disk cluster.

15. EEC's innovations include, for example, a method for limiting the number of invalidate messages sent to other computers whenever a given computer updates a given block of data. Rather than broadcast the invalidate message to every computer on the network, EEC's method sends invalidate messages only to computers that might currently have the relevant data block in their caches. This improves performance by reducing network traffic.

16. EEC applied for and received patents on its caching methods from the United States Patent and Trademark Office. The 5,577,226 patent (the '226 patent) was filed on May 6, 1994 and issued on November 19, 1996. The 5,918,244 patent (the '244 patent) was filed on May 31, 1996 and issued on June 29, 1999.

17. All of EEC's assets and liabilities, including the '226 and '244 patents, were acquired by SuperSpeed in 1999.

18. SuperSpeed applied for and received additional patents on data caching methods.

IV. <u>CLAIM ONE—PATENT INFRINGEMENT</u>

19. Defendant Google has infringed and continues to infringe one or more claims of the '226 and '244 patents by making, using, selling, importing, and/or offering to sell within the United States several infringing products, including several Google apps and their constituents, including but not limited to Google Docs, Google Sheets, Google Slides and Google Drive. (Copies of the '226 and '244 patents are attached as Exhibits A-B, respectively.)

20. Google has also infringed and continues to infringe the '226 and '244 patents by actively inducing the infringement of others.

21. Google's acts of infringement are irreparably harming and causing damage to SuperSpeed.

22. Google will continue to infringe the patents unless enjoined.

V. JURY DEMAND

23. SuperSpeed demands a trial by jury on all issues.

VI. <u>PRAYER FOR RELIEF</u>

24. SuperSpeed seeks an award of damages from Google in an amount no less than a reasonable royalty.

25. SuperSpeed seeks a permanent injunction to prevent Google's continued unlicensed use of the patented methods.

26. Google's conduct makes this an exceptional case as set forth in 35 U.S.C. § 285. Pursuant to this statutory provision, SuperSpeed seeks the recovery of its reasonable and necessary attorneys' fees.

DATED: June 7, 2013

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on the 7th day of June, 2013, I electronically filed the foregoing document with the clerk of the court for the U.S. District Court, Southern District of Texas, using the electronic filing system of the court. The electronic case filing system sent a "Notice of Electronic Filing" to the attorneys of record who have consented in writing to accept this Notice as service of this document by electronic means.

/s/Neal S. Manne