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MASTEROBJECTS, INC.

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

MASTEROBJECTS, INC.,	Case No. 3:16-cv-6824
Plaintiff,	**ORIGINAL COMPLAINT AND DEMAND FOR JURY TRIAL**
v.	
EBAY INC.	
Defendant.	

Plaintiff MasterObjects, Inc. ("MasterObjects" or "Plaintiff") hereby files its complaint against defendant eBay Inc. ("eBay" or "Defendant") for patent infringement. For its complaint, Plaintiff alleges, on personal knowledge as to its own acts and on information and belief as to all other matters, as follows:

I.   PARTIES

1.   MasterObjects is a corporation organized under the laws of the State of Delaware, with its principal place of business in San Francisco, California, prior to January 1, 2010, and now Utrecht, Netherlands.

2.   eBay is a corporation organized under the laws of the State of Delaware, with its principal place of business in San Jose, California.

II.   JURISDICTION AND VENUE

3.   This complaint asserts a cause of action for patent infringement under the Patent Act, 35 U.S.C. § 271. This Court has subject matter jurisdiction over this matter by virtue of 28 U.S.C. § 1338(a). Venue is proper in this Court by virtue of 28 U.S.C. § 1400(b), in that eBay resides in this District, has committed acts of infringement in this District, and has a regular and established place of business in this District.

4.   This Court has personal jurisdiction over eBay because eBay has a place of business in, and provides infringing products and services in, the Northern District of California.

III.   INTRADISTRICT ASSIGNMENT

5.   Pursuant to Civil LR 3-2(c), this case should be subject to district-wide assignment because it is an Intellectual Property Action.

IV.   STATEMENT OF FACTS.

A.   The Plaintiff MasterObjects and its Search Technology.

6.   From the earliest days of Internet search, the search process has been hampered by what is known as the "request-response loop." The user would type a query into a static input field, click a "submit" or "search" button, wait for the query to be sent to a remote database, wait for the result set to be returned to the server, wait for the server to build an HTML page, wait for the page to load into the browser, and then wait for the client window to be redrawn so that the result set could be viewed. Inherent in the "request-response loop" is the pragmatic reality that, if the result set did not match user expectations, the entire process had to be repeated, recursively, until the results satisfied the user.

7.   Plaintiff MasterObjects is a software company founded by Mark Smit, one of the inventors of the patent asserted here. In 1999 and 2000, Mr. Smit was a young computer scientist working on relational databases and complex document search and retrieval issues for a technology company near Amsterdam. He found the technology frustrating and slow, and thought he could do better. Accordingly, he left his job and put his life savings in a new company founded to develop better search technology. He called the company MasterObjects.

8.   By the summer of 2001, Mr. Smit had conceived of a new search paradigm. He created a way to have instant search results provided as the user typed in characters in a search request. Mr. Smit's technique uses asynchronous communications between the user's computer and the server performing the search. In the old search model, the communication was "synchronous," *i.e.*, the server would sit idle until the user hit submit, whereupon the server would do its work, and then return the information to the client. As the client worked, the server waited; as the server communicated, the client waited.

9.   To break this "request-response loop," Mr. Smit understood that he needed a

new way to communicate that was asynchronous, *i.e.*, the client and the server could talk to each other within a session in a non-blocking way. In other words, the server and the client could communicate at the same time rather than the server waiting until the client finished and vice versa. It is the difference between a walkie-talkie ("roger, over") and a telephone (where the parties can speak at any time, even simultaneously, within a conversation).

10. Mr. Smit also envisioned that the servers would store common prior search queries and related results. Storing this information, along with the asynchronous communication, allowed the system to quickly associate a few characters of a new request with a pre-existing model of the same request and results thereto, and provide suggested results right away. For example, as a user searching for information about an indoor arena in Manhattan types, "mad" becomes "madi," then later "madison sq," and then out pops search results—the content—for "madison square garden." As the user types in a query, the server provides increasingly relevant and responsive information (*e.g.*, information relating to Mad Magazine, then James Madison, then Madison Square Garden). These inventive techniques provide useful search results much faster than prior systems.

11. Along with others at MasterObjects, Mr. Smit developed a commercial embodiment of this invention, which went on the market in 2004. In every version of the product shipped by MasterObjects, the client sends the complete input containing all of the information that has been typed by a user at the time, not just the changes to the earlier inputs.

12. MasterObjects has had significant sales to clients including Hewlett-Packard, Siemens, and Princeton University. MasterObjects remains in business today. Products MasterObjects makes and sells practice the patent asserted here, MasterObjects' U.S. Patent No. 8,539,024 (the "'024 Patent"), entitled "System and Method for Asynchronous Client

Server Session Communication."

13.   The '024 Patent issued on September 17, 2013. A true and correct copy of the '024 Patent is attached hereto as Exhibit A. The '024 Patent covers sending a full input string. Under claim 1, for example, a client object sends query messages to the server system, with the term "query messages" representing the lengthening string of characters. *See* Claim 1, '024 Patent ("a server system, including one or more computers, which is configured to receive query messages from a client object . . . whereby the query messages represent the lengthening string . . . .).

B.   The Infringing eBay Products.

14.   eBay's eBay Suggestions, both for its full website and mobile website ("eBay Suggestions"), infringes claims of the '024 Patent.

15.   In addition, eBay makes, sells and distributes numerous client applications and platforms ("eBay Applications") to provide access to its search products, including search results. These include the eBay applications for the iOS, Android, and Windows Phone platforms, and extensions for the Google Chrome, Internet Explorer and Firefox web browsers. Each of these client applications and platforms forms part of systems that infringe the '024 Patent.

16.   eBay Suggestions and eBay Applications meet all the elements of claims of the '024 Patent, including all the elements of '024 Patent, Claim 1. eBay infringes the '024 Patent.

17.   For example, network logs show that eBay operates a system with a server system with the URL autosug.ebay.com. This URL corresponds to multiple physical server computers that use load balancing to distribute client requests among them. Network logs also show that the server system operated by eBay receives query messages from clients in

the form of HTTP requests. The server system responds to client query messages asynchronously; for example, the client-side JavaScript for the desktop version of the eBay website uses AJAX (Asynchronous JavaScript and XML) to send and receive messages from the server system. In this way eBay operates a server system, including one or more computers, which is configured to receive query messages from a client object, the server system asynchronously receiving and responding to query messages from the client object over a network, as required by Claim 1 of the '024 Patent.

18.   This same eBay operated system is a system comprising the client object that, while a user is providing input comprising a lengthening string of characters, sends query messages to the server system, as required by Claim 1 of the '024 Patent. The clients of the eBay system send query messages to the server system while a user is typing a search string into the search text box. Observation of the system's network traffic shows that an HTTP **GET** request containing the current search string is sent when one or more characters are typed by the user. In addition, for example, the client-side JavaScript for the desktop version of the eBay website includes functions named **keydown** and **input** for handling each key pressed by a user. Tracing the call flow shows that these functions append each new character typed to the current search string and cause a new message to be sent to the server system.

19.   The network logs for the same eBay system described above, with the server system with the URL autosug.ebay.com, show that the HTTP **GET** messages sent to the server system from the clients include the search string input by the user. The search string is encoded in the URL of the HTTP message. In this way eBay operates a system whereby the query messages represent the lengthening string as additional characters are being input by the user, as required by Claim 1 of the '024 Patent.

20.   The server system with the URL autosug.ebay.com, which is part of the same eBay operated system described above, replies to each HTTP **GET** message sent by the client. The network logs for the system show that each HTTP response sent by the server system includes a list of possible search strings that begin with the characters input by the user, along with possible shopping categories in which those searches are often performed. These responses are derived from data available to the server system. *See* http://workshops.ebay.com/thread.jspa?threadID=140000212 ("Leveraging the power of the millions of searches conducted on eBay each day, this tool uses the power of the community to provide suggestions in real time right from the search box. We hope this will allow users to search faster and more efficiently as well as provide inspiration based on other successful searches, common queries, done by the eBay community"). In this way eBay operates a system wherein the server system, while receiving said query messages, uses the input to query data available to the server system and send return messages to the client object containing results in response to input, as required by Claim 1 of the '024 Patent.

21.   This same eBay operated system is a system wherein, upon receiving a return message of the return messages from the server system, the client object tests the usability of the results in the return message by checking that the return message corresponds to the latest query, and if usability is established, the client object displays or returns at least some results data to the user, as required by Claim 1 of the '024 Patent. For example, the JavaScript for the eBay desktop website uses the function **_response** to handle the return message containing the results of a query. This function also tests the usability of the results by checking that the message corresponds to the latest query. The JavaScript maintains a counter of the total number of requests that have been sent and stores the number of each individual request. When a return message is received, the JavaScript compares the number

of the request to the total number that have been sent, and if they match, the results are displayed. The results are displayed using the **_renderMenu** function. This function appends each item in the results to a HTML list using the **<li>** HTML tag.

22. The above described eBay system meets each element of Claim 1 of the '024 Patent—it is an infringing system.

C. **eBay Knew of the MasterObjects '024 Patent.**

23. eBay had notice and knowledge of the '024 Patent.

24. eBay was involved in a prior suit with MasterObjects. The prior suit was filed in February 2012 and continued into February 2015. The prior suit asserted that eBay search technology infringed MasterObjects' U.S. Patents Nos. 8,112,529, 7,752,326 and 8,060,639 (the "'529 Patent," the "'326 Patent" and the "'639 Patent" respectively). The '326 Patent is a continuation-in-part of the '529 Patent, and the '639 Patent is a continuation of the '326 Patent. The '024 Patent, the patent-in-suit here, is a continuation of the '529 Patent. As such, the patent-in-suit here belongs to the same family as the patents asserted in the prior suit. However, the '024 Patent contains claims that lack the "additional character" terms seized on by a defendant in a past action to argue that certain '529 Patent and '639 Patent claims are limited to sending only the changes to the input string from the client to the server. Claim 1 of the '024 Patent, for example, expressly states that "the query messages represent the lengthening string."

25. Being a party to litigation over '024 Patent family members at the time the '024 Patent issued, eBay was monitoring U.S. Patent & Trademark Office activity as to the '024 Patent family, and was aware of the '024 Patent's issuance.

26. More, in September 2013, eBay was aware of, and monitoring, other cases pending in this District that involved the '024 Patent family. For example, in September

2012, with respect to the prior action, eBay travelled to the Netherlands to participate in the deposition of one of the patent-in-suit's named inventors. Also present at the deposition were counsel for Google and Yahoo!, who were participating in the deposition with respect to other actions then pending in this District that involved '024 Patent family members. Given eBay's familiarity with these cases, including deposition coordination, eBay monitored filings in these other cases. On September 17, 2013, the day the '024 Patent issued, MasterObjects filed a complaint against Google asserting the '024 Patent. The next day MasterObjects filed a motion to relate the newly filed '024 Patent case to the prior Google case. Given eBay monitored the filings in the prior Google case, eBay became aware that MasterObjects asserted the '024 Patent against Google soon after the '024 Patent issued.

27. In addition, long before the filing of this action, MasterObjects and eBay discussed the '024 Patent. *See, e.g.*, Email from Spencer Hosie (counsel for MasterObjects) to John Barr (counsel for eBay), Nov. 20, 2014 ("Lets discuss how best to handle the 024 case. [W]e can file a new complaint and serve notice of related case. [B]ut I th[in]k it makes more sense to add it to existing case. [I]t is not remotely susceptible to the add'l character argument, as the claims define a query as the full string, and this point is explicit in the [(prosecution history)]").

28. Further still, the docket for the prior MasterObjects-eBay case itself reveals that eBay was on notice of the '024 Patent. The stipulated dismissal and order filed in the prior action on February 4, 2015 reads as follows: "this judgment of dismissal will not be res judicata as to any action on the MasterObjects' U.S. Patent No. 8,539,024. " *See MasterObjects, Inc. v. eBay Inc.*, Case No. CV 12-680 JSC, Norther District of California, Dkt No. 124. eBay counsel concurred in the filing of the stipulated dismissal, expressly agreeing that the dismissal would have no preclusive effect as to a subsequent action on the

'024 Patent.

29.   eBay was put on notice of the '024 Patent in 2013, 2014 and 2015. Yet, despite MasterObject's prior claims that eBay search technology infringed other '024 Patent family members, eBay continued to offer eBay Suggestions and eBay Applications when confronted with the '024 Patent. eBay's infringement of the '024 Patent is willful.

<div align="center">

COUNT I
PATENT INFRINGEMENT
(The '024 Patent)

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30.   MasterObjects incorporates and re-alleges, as though fully set forth herein, the allegations contained in paragraphs 1-29 above.

31.   On September 17, 2013, United States Patent No. 8,539,024, entitled "System and Method for Asynchronous Client Server Session Communication," was duly and legally issued. A true and correct copy of the '024 Patent is attached hereto as Exhibit A.

32.   Mark Smit and Stefan van den Oord are the inventors of the '024 Patent. The '024 Patent has been assigned to Plaintiff. Plaintiff MasterObjects is the sole legal and rightful owner of the '024 Patent.

33.   eBay makes, uses, and/or sells products or services that infringe the '024 Patent, as further explained in Paragraphs 14-22 above. This conduct constitutes infringement under 35 U.S.C. § 271(a).

34.   eBay's infringement of the '024 Patent is willful. As further explained in Paragraphs 23-29 above, while eBay has been on notice of the '024 Patent since at least September 2013, and certainly no later than November 2014, eBay continues to make, use and/or sell products/services that infringe the '024 Patent despite knowledge that its actions constitute infringement of a valid patent.

35.   As a result of the infringement by eBay, Plaintiff has been damaged, and will

1   continue to be damaged, until eBay is enjoined from further acts of infringement.

2   36.   eBay will continue to infringe unless enjoined by this Court. Plaintiff faces

3   real, substantial and irreparable damage and injury of a continuing nature from infringement

4   for which Plaintiff has no adequate remedy at law.

5   **PRAYER FOR RELIEF**

6   WHEREFORE, Plaintiff prays for entry of judgment:

7
         A.   that the '024 Patent is valid and enforceable;
8
9   B.   that Defendant has infringed one or more claims of the '024 Patent;

10   C.   that Defendant's infringement of the claims of the '024 Patent was willful;

11   D.   that Defendant account for and pay to Plaintiff all damages caused by the

12   infringement of the '024 Patent, which by statute can be no less than a reasonable royalty;

13
         E.   that the damages to Plaintiff be increased by three times the amount found
14
15   or assessed pursuant to 35 U.S.C. § 284 and that the Defendant account for and pay to

     Plaintiff the increased amount;
16
17   F.   that this Court issue a preliminary and final injunction enjoining eBay, its

18   officers, agents, servants, employees and attorneys, and any other person in active concert or

19   participation with them, from continuing the acts herein complained of, and more

20   particularly, that eBay and such other persons be permanently enjoined and restrained from

21   further infringing the '024 Patent;
22
         G.   that Plaintiff be granted pre-judgment and post-judgment interest on the
23
24   damages caused to them by reason of Defendant's infringement of the '024 Patent;

25   H.   that this Court require Defendant to file with this Court, within thirty (30)

26   days after entry of final judgment, a written statement under oath setting forth in detail the

27   manner in which Defendant has complied with the injunction;

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ORIGINAL COMPLAINT   10   Case No. 3:16-cv-6824
AND JURY DEMAND

I.   that this be adjudicated an exceptional case and Plaintiff be awarded its attorneys' fees in this action pursuant to 35 U.S.C. § 285;

J.   that this Court award Plaintiff its costs and disbursements in this civil action, including reasonable attorney's fees; and

K.   that Plaintiff be granted such other and further relief as the Court may deem just and proper under the current circumstances.

Dated: November 28, 2016   Respectfully submitted,

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MASTEROBJECTS, INC.

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DEMAND FOR JURY TRIAL

2   Plaintiff, by its undersigned attorneys, demands a trial by jury on all issues so triable.

3   Dated: November 28, 2016   Respectfully submitted,

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ORIGINAL COMPLAINT   12   Case No. 3:16-cv-6824
AND JURY DEMAND