

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5634744

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
EFFICIENT FRONTIER	02/15/2012
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	ADOBE SYSTEMS INCORPORATED
<b>Street Address:</b>	345 PARK AVENUE
<b>City:</b>	SAN JOSE
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	95110-2704
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	13905412
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(404)541-4722
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	404-815-6500
<b>Email:</b>	bpough@kilpatricktownsend.com
<b>Correspondent Name:</b>	KILPATRICK TOWNSEND & STOCKTON LLP ADOBE
<b>Address Line 1:</b>	MAILSTOP: IP DOCKETING - 22
<b>Address Line 2:</b>	1100 PEACHTREE STREET, SUITE 2800
<b>Address Line 4:</b>	ATLANTA, GEORGIA 30309-4530
<b>ATTORNEY DOCKET NUMBER:</b>	058083 0876789 2307US05
<b>NAME OF SUBMITTER:</b>	BARBARA POUGH
<b>SIGNATURE:</b>	/BARBARA POUGH/
<b>DATE SIGNED:</b>	07/24/2019
<b>Total Attachments: 4</b>	
source=2307US05 Assignment_Efficient_Frontier_to_Adobe_Systems_Incorporated#page1.tif	
source=2307US05 Assignment_Efficient_Frontier_to_Adobe_Systems_Incorporated#page2.tif	
source=2307US05 Assignment_Efficient_Frontier_to_Adobe_Systems_Incorporated#page3.tif	
source=2307US05 Assignment_Efficient_Frontier_to_Adobe_Systems_Incorporated#page4.tif	

**ASSIGNMENT OF PATENTS RIGHTS BY  
EFFICIENT FRONTIER TO ADOBE SYSTEMS INCORPORATED**

Effective this 15th day of February, 2012 for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned Efficient Frontier, Inc., a Delaware corporation having a business address at 809 Eleventh Avenue - Building 4, Sunnyvale, CA 94089, ("Assignor") does hereby:

- 1) Represent and warrant that Assignor is the sole owner of the patents, provisional patent applications, non-provisional patent applications and any and all other assets or rights listed on Exhibit A (collectively, the "Patents") in addition to the assets or rights identified in categories 2) b) through 2) k);
- 2) Assign, transfer and convey to Adobe Systems Incorporated, a Delaware corporation having a business address at 345 Park Avenue, San Jose, California 95110-2704 ("Assignee"), all of Assignor's right, title and interest that exist today and may exist in the future, in the United States of America, its territorial possessions, and any and all countries of the world, in and to any and all of the following:
  - a) the Patents;
  - b) any patent which may issue or be granted from any of the Patents;
  - c) all patents and patent applications (i) to which any of the Patents directly or indirectly claims priority, (ii) for which any of the Patents directly or indirectly forms a basis for priority, and/or (iii) that were co-owned applications that incorporate by reference, or are incorporated by reference into, the Patents;
  - d) all reissues, reexaminations, extensions, continuations, continuations in part, continuing prosecution applications, requests for continuing examinations, divisions, and registrations of any item in any of the foregoing categories a) through c);
  - e) all foreign patents, patent applications, and counterparts relating to any item in any of the foregoing categories a) through d), including, without limitation, certificates of invention, utility models, industrial design protection, design patent protection, and other governmental grants or issuances;
  - f) all items in any of the foregoing in categories b) through e), whether or not expressly listed as Patents on Exhibit A and whether or not claims in any of the foregoing have been rejected, withdrawn, cancelled, or the like;
  - g) inventions, invention disclosures, and discoveries described in any of the Patents and/or any item in the foregoing categories b) through f) that (i) are included in any claim in the Patents and/or any item in the foregoing categories b) through f), (ii) are subject matter capable of being reduced to a patent claim in a reissue or reexamination proceeding brought on any of the Patents and/or any item in the foregoing categories b) through f), and/or (iii) could have been included as a claim in any of the Patents and/or any item in the foregoing categories b) through f);
  - h) all rights to apply in any or all countries of the world for patents, certificates of invention, utility models, industrial design protections, design patent protections, or other governmental grants or issuances of any type related to any item in any of the foregoing categories a) through g), including, without limitation, under the Paris Convention for the Protection of Industrial Property, the International Patent Cooperation Treaty, or any other convention, treaty, agreement, or understanding;

- i) all causes of action (whether known or unknown or whether currently pending, filed, or otherwise) and other enforcement rights under, or on account of, any of the Patents and/or any item in any of the foregoing categories b) through h), including, without limitation, all causes of action and other enforcement rights for (i) damages, (ii) injunctive relief, and (iii) any other remedies of any kind for past, current, and future infringement; and
  - j) any provisional or other right to recover damages, including royalties, for prior infringements of any patent application identified in any of the Patents and/or any item in any of the foregoing categories (b) through (i);
  - k) all rights to collect royalties and other payments under or on account of any of the Patents and/or any item in any of the foregoing categories (b) through (j);
- 3) Agree, upon request by and at the expense of Assignee (or its successors, assigns or legal representatives), to (i) execute all oaths, assignments, powers of attorney and any other papers, (ii) testify in any legal or quasi legal proceedings, (iii) take any action, and (iv) otherwise fully cooperate with Assignee, in connection with perfecting Assignee's title, or securing, maintaining and enforcing Assignee's rights, under this assignment; and
- 4) Represent, warrant and covenant that no assignment, grant, mortgage, license or other agreement inconsistent with the rights and property herein conveyed to Assignee has been made or shall be made by Assignor.

Assignor hereby requests the issuance of said patents to Assignee for the sole use and behalf of Assignee, its successors, legal representatives and assigns.

**Efficient Frontier, Inc. ("Assignor")**

Date: February 10, 2012

By: 

Name: Richard Rowley

Title: President

**Adobe Systems Incorporated ("Assignee")**

Date: February 10, 2012

By: 

Name: Mark Garrett

Title: Executive Vice President &  
Chief Financial Officer

## EXHIBIT A

6067-79900	P001	60/450,597 F 2/26/03	Method and Apparatus for On-line Query Answer Set Position bidding	Anil Kamath
6067-79901	P001	7870017 I 1/11/11	Method and Apparatus for Position Bidding	Anil Kamath
6067-80000	P002	60/660,580 F 3/10/05	Keyword Effectiveness Prediction Method and Apparatus	Zachary Mason
6067-80001	P002	11/370,679 F 3/8/06	Keyword Effectiveness Prediction Method and Apparatus	Zachary Mason
6067-80002	P002PCT	PCT/US2006/008525 F 3/9/06	Keyword Effectiveness Prediction Method and Apparatus	Zachary Mason
6067-80003	P002EP	06737681.4 F 9/17/07	Keyword Effectiveness Prediction Method and Apparatus	Zachary Mason
6067-80100	P003	60/660,581 F 3/10/05	Keyword Generation Method and Apparatus	Zachary Mason
6067-80101	P003	11/371,267 F 3/8/06	Keyword Generation Method and Apparatus	Zachary Mason
6067-80200	P004	60/692,421 F 6/20/05	Keyword Characterization and Application	Zachary Mason
6067-80201	P004	7519588 I 4/14/09	Keyword Characterization and Application	Zachary Mason
6067-80300	P005	60/705,599 F 8/3/05	Click Fraud Prevention	Zachary Mason
6067-80301	P005	7401130 I 7/15/08	Click Fraud Prevention	Zachary Mason
6067-80400	P009	60/795,416 F 4/27/06	Advertisement Generation and Optimization	Zachary Mason
6067-80401	P009	11/741,183 F 4/27/07	Advertisement Generation and Optimization	Zachary Mason
6067-80402	P009C	12/901,381 F 10/8/10	Advertisement Generation and Optimization	Zachary Mason
6067-80500	P011	61/243,873 F 9/18/09	Modeling and Optimal Bidding in a Real-Time Multi-Channel, Online Advertising Environment	Abhishek Pani Anil Kamath
6067-80501	P011	12/884,828 F 9/17/10	Advertisee-History-Based Bid Generation System and Method for Multi-Channel Advertising	Abhishek Pani Anil Kamath
6067-80502	P011PCT	PCT-US2010/049332 F 9/17/10	Advertisee-History-Based Bid Generation System and Method for Multi-Channel Advertising	Abhishek Pani Anil Kamath
6067-81100	P001X	12/973,680 F 12/20/10	Method and Apparatus for Position Bidding (Transferred from Schwabe CIP of 6067-79901 & 12/884,828,9/17/10)	Anil Kamath
6067-81101	P001XPCT	PCT/US/65995 F 12/20/11	Method and Apparatus for Position Bidding	Anil Kamath
6067-81200	P006	60/755,333 F 12/29/05	Keyword Semantics	Zachary Mason

6067-81300	P007	60/755,354 F 12/30/05	Using Qualitative Inputs Expressed in a Natural Language to Influence Keyword Bidding Performance	Ravi K. Jagannathan
6067-81400	P008	60/784,293 F 3/21/06	Optimization of Ad Placement in Various Media	Zachary Mason
6067-81401	P008	11/689,005 F 3/21/07	Optimization of Ad Selection and/or Placement in Media Objects	Zachary Mason
6067-81402	P008C	12/970,697 F 12/16/10	Optimization of Ad Selection and/or Placement in Media Objects	Zachary Mason
6067-81500	P010	60/827,252 F 9/28/06	Dynamic Advertisement Generation	Zachary Mason