

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
GALEN RAFFERTY	10/29/2019
AUSTIN WALTERS	10/30/2019
JEREMY GOODSITT	10/30/2019
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	CAPITAL ONE SERVICES, LLC
<b>Street Address:</b>	1680 CAPITAL ONE DRIVE
<b>City:</b>	MCLEAN
<b>State/Country:</b>	VIRGINIA
<b>Postal Code:</b>	22102
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16671912
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(202)344-8300
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<b>Address Line 1:</b>	P.O. BOX 34385
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<b>ATTORNEY DOCKET NUMBER:</b>	142743.505427 (IDF5568)
<b>NAME OF SUBMITTER:</b>	JEFFRI A. KAMINSKI
<b>SIGNATURE:</b>	/Jeffri A. Kaminski/
<b>DATE SIGNED:</b>	11/01/2019
This document serves as an Oath/Declaration (37 CFR 1.63).	
<b>Total Attachments: 3</b>	
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**ASSIGNMENT AND DECLARATION FOR UTILITY OR DESIGN PATENT  
APPLICATION****ASSIGNMENT:**

**WHEREAS** the below-named inventor(s), hereinafter referred to as Assignor, invented a certain improvement entitled: **DYNAMIC DIRECTORY RECOMMENDATION AND MANAGEMENT**, for which said Assignor has caused a patent application to be prepared and which:

☒ is attached hereto, or

☐ was filed as United States Patent Application No. \_\_\_\_\_ on \_\_\_\_\_.

**WHEREAS Capital One Services, LLC**, hereinafter referred to as Assignee, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefore, including any and all renewals, reissues and prolongations thereof;

**NOW THIS WITNESSETH**, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by Assignee to Assignor, the receipt and sufficiency of which is hereby acknowledged, Assignor hereby assigns, sells and transfers, and has assigned, sold, and transferred to Assignee, its successors and assigns, the entire and exclusive right, title, and interest for the United States in and to the invention, the application, and any patents which may be granted therefor, including any and all nonprovisional applications, divisions, continuations, in whole or in part, substitutions, renewals, reissues, reexaminations, and extensions thereof, and all applications claiming priority therefrom; and Assignor authorizes and requests the Commissioner of Patents and Trademarks to issue all patents for the invention, or patents resulting therefrom, insofar as their interest is concerned, to Assignee; to have, hold, exercise, and enjoy, with all the rights, powers, privileges, and advantages in anywise arising therefrom or appertaining thereto, for and during the term or terms of any and all such patents when granted, for the use and benefit of said Assignee, and said Assignee's successors and assigns, in as ample and beneficial a manner as Assignor might or could have held and enjoyed the same, if this assignment had not been made.

Assignor further hereby assigns, sells and transfers, and has assigned, sold, and transferred to Assignee, its successors and assigns, the entire right, title and interest in all countries of the world, in and to the invention and in and to the application and all patents which may be granted therefor, and all international applications, national applications, regional applications, divisions, reissues, substitutions, continuations, in whole or in part, re-examinations, and extensions thereof, including the right to file applications and obtain patents

for the invention in its own name, in all countries and including all rights of priority in all countries under the terms of any applicable international convention, insofar as its interest is concerned; and the Assignor hereby authorizes and requests the applicable patent office in each country of the world to issue all patents for the invention, or patents resulting therefrom, insofar as its interest is concerned, to the Assignee, to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which any and all of such patents for the invention may issue, to the same extent as the Assignor would hold and enjoy if this Assignment had not been made.

Assignor further agrees to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights, and also agrees, at the request of the Assignee, to testify in any legal proceedings, sign all lawful papers, make all lawful oaths, and generally do everything possible to aid said Assignee, its successors and assigns, to obtain, maintain and enforce proper patent protection for said invention.

Assignor hereby represents and warrants to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignor is the sole and lawful owner of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth.

Assignor hereby grants the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document:

VENABLE LLP  
All practitioners at Customer Number **162789**

**DECLARATION:**

As the below named inventor, I hereby declarant that:

This declaration is directed to the above-identified application which was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

IN TESTIMONY WHEREOF, each individual collectively referred to as Assignor hereby execute as shown below.

**Assignors:**

Signature: Galen Rafferty  
Name: Galen RAFFERTY  
Date: 10/29/2019

Signature: Austin Walters  
Name: Austin WALTERS  
Date: 10/30/2019

Signature: Jeremy Goodsitt  
Name: Jeremy GOODSITT  
Date: 10/30/2019