## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT7367877

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

#### **CONVEYING PARTY DATA**

Name	Execution Date
MURALIDHARAN BALASUBRAMANIAN	06/27/2019
ERIC K. BARNUM	06/26/2019
JULIE DALLEN	06/26/2019
DAVID WATSON	06/26/2019

### **RECEIVING PARTY DATA**

Name:	CAPITAL ONE SERVICES, LLC
Street Address:	1680 CAPITAL ONE DRIVE
City:	MCLEAN
State/Country:	VIRGINIA
Postal Code:	22102

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	17833618

### **CORRESPONDENCE DATA**

Fax Number: (202)824-3001

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.

Phone: 2028243000

nrollhauser@bannerwitcoff.com, bwptopat@bannerwitcoff.com Email:

BANNER & WITCOFF, LTD. **Correspondent Name:** 1100 13TH STREET NW Address Line 1:

Address Line 2: STE 1200

Address Line 4: WASHINGTON, D.C. 20005

ATTORNEY DOCKET NUMBER:	009033.00584
NAME OF SUBMITTER:	SCOTT M. KELLY
SIGNATURE:	/Scott M Kelly/
DATE SIGNED:	06/06/2022

### **Total Attachments: 4**

source=9033-584 Combined Declaration and Assignment (all inventors)#page1.tif source=9033-584 Combined Declaration and Assignment (all inventors)#page2.tif

source=9033-584 Combined Declaration and Assignment (all inventors)#page3.tif source=9033-584 Combined Declaration and Assignment (all inventors)#page4.tif

# COMBINED PATENT DECLARATION AND ASSIGNMENT

TITLE OF INVENTION:	DETERMINING PROBLEM DEPENDENCIES IN APPLICATION DEPENDENCY DISCOVERY, REPORTING, AND MANAGEMENT TOOL			
	DECLARATION			
As the below named invento	or, I hereby declare that:			
<ul> <li>This declaration is directed to:</li> </ul>	□ The attached application, or			
	☐ United States application or PCT international application number			
<ul> <li>The above-identified application was made or authorized to be made by me.</li> <li>I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</li> <li>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.</li> </ul>				
	ASSIGNMENT			
<b>WHEREAS</b> , I, the below nam application number and filin	ed Inventor/Assignor, have invented the above invention, having the following g date:			
U.S. Applic	cation No filed			
	I hereby authorize the attorneys for Assignee to insert the filing date and application after they become known and prior to recording this document.			
One Drive, McLean, Virginia	vices, LLC ("Assignee"), a Corporation having offices and a place of business at 1680 Capital 22102, is desirous of acquiring the entire right, title and interest in and to the aforesaid applications and Letters Patent therefor granted in the United States of America, and in thereto:			
NOW, THEREFORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary and/or payment for the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I said Assignor, by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal representatives, the full and exclusive right, title and interest for the territory of the United States of America and all countries foreign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), in and to said inventions and in and to all applications and Letters Patent granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, continuations, continuation-in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, confidential information, and compilations, necessary or useful to make, use, or sell the inventions.  I hereby authorize and request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said inventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and interest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment.				
I agree that I will without further consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I will execute all non-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal proceedings, sign all lawful papers, make all rightful oaths, and generally do everything reasonable for said Assignee, its successors, assigns, and nominees, to obtain and enforce proper patent protection for said inventions in all countries.				
INVENTOR/ASSIGNOR:				
Legal Name: N	Auralidharan Balasubramanian al One Services, LLC, 1680 Capital One Drive, McLean, Virginia 22102			
Mur	signed by: alidharan Balasubramanian 6/27/2019			
Signature: \(\frac{\lambda_{27969}}{\lambda_{27969}}\)	Date:			

# COMBINED PATENT DECLARATION AND ASSIGNMENT

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One Drive, McLean, Virginia	22102, is desirous of a applications and Letter	a Corporation having offices and a place of business at 1680 Capital cquiring the entire right, title and interest in and to the aforesaid s Patent therefor granted in the United States of America, and in		
NOW, THEREFORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary and/or payment for the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I said Assignor, by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal representatives, the full and exclusive right, title and interest for the territory of the United States of America and all countries foreign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), in and to said inventions and in and to all applications and Letters Patent granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, continuations, continuation-in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, confidential information, and compilations, necessary or useful to make, use, or sell the inventions.  I hereby authorize and request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said inventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and interest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment.  I agree that I will without further consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I will execute all non-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal proceedings, sign all lawful papers, make all rightful oaths, and general				
INVENTOR/ASSIGNOR:				
	ric K. Barnum			
	al One Services, LLC,	1680 Capital One Drive, McLean, Virginia 22102		
Eric .	Barrum	6/26/2019		
Signature: \(\frac{\lambda_{\text{\tin}\exititent{\texi}\text{\text{\text{\texi}\text{\text{\text{\texi{\text{\texi{\texi{\texi\texi{\text{\\tii}\\tint{\text{\texi{\texi{\texi{\texi{\texi{\texi}\texi{\tex	RD638FF4A2	Date:		

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One Drive, McLean, Virginia	22102, is desirous of a applications and Letter	a Corporation having offices and a place of business at 1680 Capital equiring the entire right, title and interest in and to the aforesaid so Patent therefor granted in the United States of America, and in		
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INVENTOR/ASSIGNOR:				
	ulie Dallen			
Address: c/o Capital One Services, LLC, 1680 Capital One Drive, McLean, Virginia 22102				
	Pallen	6/26/2019 Date:		

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As the below named inventor	or, I hereby declare that:			
<ul> <li>This declaration is directed to:</li> </ul>		lication, or		
		olication or PCT international applicati filed on		
<ul><li>I believe that I am f</li><li>I hereby acknowled</li></ul>	ed application was made or a the original inventor or an or	uthorized to be made by me. iginal joint inventor of a claimed inver ement made in this declaration is pun	ntion in the application.	
	ASSI	GNMENT		
<b>WHEREAS</b> , I, the below namapplication number and filing	_	nvented the above invention, having	the following	
U.S. Applic	ation No	, filed	·	
		neys for Assignee to insert the filing dand of the filing dand prior to recording this document.	ate and application	
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INVENTOR/ASSIGNOR:				
	David Watson			
<u> </u>		Capital One Drive, McLean, Virgin	ia 22102	
Davi	signed by: L Watson		6/2019	
Signature:	444E0344A0	Date:		

PATENT REEL: 060114 FRAME: 0426

**RECORDED: 06/06/2022**