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Form <b>PTO-1595</b> (Rev. 6-12) OMB No. 0651-0027 (exp. 04/30/2018)	U.S. DEPARTMENT OF COMMERCE ed States Patent and Trademark Office			
A I I I I REC	07 / 2017			
To the Director of the U.S. Patent and Trac	3677584 its or the new address(es) below.			
1. Name of conveying party(ies)	zavame and address of receiving party(ies)			
	Name:AT&T INTELLECTUAL PROPERTY I, L.P.			
JAMES OLIVER	Internal Address:SUITE 4000			
Additional name(s) of conveying party(ies) attached? Yes X No				
3. Nature of conveyance/Execution Date(s):	Street Address: 675 W. Peachtree Street			
Execution Date(s)05 SEP 2014	l			
X   Assignment				
Security Agreement Change of Name	City: Atlanta			
Joint Research Agreement	State:GA			
Government Interest Assignment	State. GA			
Executive Order 9424, Confirmatory License	Country: US Zip:30375			
Other continued on page 2	Additional name(s) & address(es) attached?  Yes No			
4. Application or patent number(s):  This document serves as an Oath/Declaration (37 CFR 1.63).				
A. Patent Application No.(s)	B. Patent No.(s)			
15/605350				
20, 00000				
Additional numbers at	 			
Additional numbers attached? Yes No  5. Name and address to whom correspondence  6. Total number of applications and patents				
concerning document should be mailed:	6. Total number of applications and patents involved: 1			
Name:AT&T Legal Department - Canavan	7 Tatal fac (27 CER 4 24/b) 8 2 44) 6 40			
Internal Address:Room 2A-207	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40 ρδ -			
ATTN: Patent Docketing	l			
	Authorized to be charged to deposit account  Enclosed			
Street Address: One AT&T Way	None required (government interest not affecting title)			
City: Bedminster	8. Payment Information			
State: NJ Zip07921				
Phone Number:	Denesit Assount Number			
Docket Number: 2014-0522CON	Deposit Account Number			
Email Address:canavaniplaw@optonline.net	Authorized User Name			
9. Signature: /Robert T. Canavan/	08/01/2017			
Signature	Date			
Robert T.Canavan	Total number of pages including cover			
Name of Person Signing sheet, attachments, and documents:  Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:				
- Figure of the contract of th	4) about be found to (F74) 970 0440			

PATENT REEL: 043228 FRAME: 0891 Continuation of RECORDATION FORM COVER SHEET PATENT APPLICATION NO. 15/605,350

August 1, 2017

## Continuation of BLOCK 3: Nature of Conveyance/Execution Date(s)

Other Corrective Assignment to correct Execution Date by James Oliver which was incorrectly shown on Cover Sheet previously recorded at Reel 042509 Frame 0552. Assignor hereby confirms the assignment.

covenant and agree to bind our heirs, legal representatives, and assigns, to do same, without compensation, but at the expense of Assignee or its representatives.

AND, I HEREBY consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of AT&T Intellectual Property I, L.P. to apply for patent or other form of protection for said inventions and to claim the aforesaid benefit of the right of priority.

This Assignment may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed an original, and such counterparts together shall constitute one and the same instrument. A facsimile copy of this Assignment, or any form of an electronic copy of this Assignment, including the signature pages hereto, shall be deemed to be an original.

IN TESTIMONY WHEREOF, I have hereunto set my hand this OS day of SEPTEMBER 2014.

James Oliver

State of Alborna

On this day of 2014, before me a Notary Public in and for the above County and State, personally appeared James Oliver, and acknowledged the execution of the foregoing assignment as his/her free act and deed for the purpose herein set forth.

Notary Public

My Commission Expires: Yournelin 5, 2016

$\bigwedge$			
Form PTG-1595 (Rev. 6-12)  OMB No. 0651-0027 (exp. 04/30/2018)	5/14/2017 U.S. DEPARTMENT OF COMMERCI nited States Patent and Trademark O		
6/14/17 RE			
To the Director of the U.S. Patent and Tr.	035/7353nents or the new address(es) below.		
1. Name of conveying party(ies)	2. Name and address of receiving party(ies)		
	Name:AT&T INTELLECTUAL PROPERTY I, L.P.		
JAMES OLIVER	Internal Address: SUITE 4000		
Additional name(s) of conveying party(ies) attached? Yes	× No.		
3. Nature of conveyance/Execution Date(s):	Street Address: 675 W. Peachtree Street		
Execution Date(s)05 SEP 2014			
Assignment Merger			
Security Agreement Change of Nan	City: Atlanta		
Joint Research Agreement	State:GA		
Government Interest Assignment	Country: US Zip:30375		
Executive Order 9424, Confirmatory License	County.		
★ Other corrective assgmt to correct exec. date	Additional name(s) & address(es) attached?		
	This document serves as an Oath/Declaration (37 CFR 1.6		
A. Patent Application No.(s)	B. Patent No.(s)		
15/605350			
Additional numbers. Name and address to whom correspondence			
concerning document should be mailed:	6. Total number of applications and patents involved: 1		
Name:AT&T Legal Department - Canavan	7. Total fee (37 CFR 1.21(h) & 3.41) \$40		
Internal Address:Room 2A-207	- 1. Total loc (57 57 17 7.2 (11) & 5.4 1) 4.5		
ATTN: Patent Docketing	Authorized to be charged to deposit account		
Street Address:One AT&T Way			
	None required (government interest not affecting til		
City: Bedminster	8. Payment Information		
State:NJ Zip07921			
Phone Number:			
Docket Number: 2014 - 0522	Deposit Account Number		
Email Address:canavaniplaw@optonline.net	Authorized User Name		
9. Signature: /Pobert T Can			
/Robert T. Can Signature			
Robert T.Canavan	Total number of pages including cover 6		
Name of Person Signing	sheet, attachments, and documents:		
Documents to be recorded (including cover	er sheet) should be faxed to (571) 273-0140, or mailed to:		

PATENT REEL: 043228 FRAME: 0894

## **ASSIGNMENT**

WHEREAS I, James Oliver, residing at 117 Kensington Lane, Alabaster, Alabama 35007, hereafter referred to as Assignor, am listed as an inventor on a patent application entitled "ACR BUFFERING IN THE CLOUD" having AT&T Docket No. 2014-0522, the patent application to be filed in the United States Patent & Trademark Office; and

WHEREAS, AT&T Intellectual Property I, L.P., a partnership organized and existing under the laws of Nevada and having an address at 675 W. Peachtree Street, Suite 4000, Atlanta, GA 30375 (hereinafter referred to as Assignee), desires to acquire the entire right, title and interest for the United States of America and elsewhere throughout the world in and to said invention and the patent application identified above, including any and all divisions and continuations thereof and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues and prolongations thereto;

NOW THEREFORE, be it known that for and in consideration of the sum of Ten Dollars (\$10.00) and other good and valuable consideration the receipt of which from Assignee is hereby acknowledged, I, as Assignor, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, my entire right, title, and interest in and to this invention and this non-provisional application, and all divisions, substitutions, and continuations thereof; and all Letters Patent of the United States which may be granted thereon, and all reexaminations and reissues thereof; and all rights to claim priority on the basis of the above provisional application (if any), as well as all rights to claim priority on the basis of this application; and all applications for Letters Patent which may hereafter be filed for this invention in any foreign country and all Letters Patent which may be granted on this invention in any foreign country, including certificates of inventions, utility models, industrial design protection, design patent protection, and other governmental grants or issuances; and all extensions, renewals, prolongations, and reissues thereof; 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 and terms for all such patents;

AND, I HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent for this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment;

AND, I HEREBY covenant that I have the full right to convey the interest assigned by this Assignment, and I have not executed and will not execute any assignment, sale, license, agreement, or encumbrance in conflict with this Assignment;

AND, I HEREBY further covenant and agree, for the Assignor and the Assignor's legal representatives, that I will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to us respecting this invention; assist the Assignee in the prosecution of the patent application identified above; assist in the making and prosecution of any other patent applications that the Assignee may elect to make covering the invention identified above; testify in any interference, litigation, or other legal proceeding; sign all lawful papers when called upon to do so; execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee, its successors or assigns; execute all divisional, continuation, and reissue applications; make all rightful oaths and generally do everything possible to aid Assignee, to obtain and enforce proper patent protection for this invention in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee; and hereby instruct, and further

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