

## PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT2724799

SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>VANEET AGGARWAL</td> <td>02/10/2014</td> </tr> <tr> <td>RITTIK JANA</td> <td>02/10/2014</td> </tr> <tr> <td>CHRISTOPHER W. RICE</td> <td>02/06/2014</td> </tr> <tr> <td>NEMMARA K. SHANKARANARAYANAN</td> <td>02/12/2014</td> </tr> </tbody> </table>		Name	Execution Date	VANEET AGGARWAL	02/10/2014	RITTIK JANA	02/10/2014	CHRISTOPHER W. RICE	02/06/2014	NEMMARA K. SHANKARANARAYANAN	02/12/2014
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RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>AT&amp;T INTELLECTUAL PROPERTY I, L.P.</td> </tr> <tr> <td>Street Address:</td> <td>675 WEST PEACHTREE STREET</td> </tr> <tr> <td>City:</td> <td>ATLANTA</td> </tr> <tr> <td>State/Country:</td> <td>GEORGIA</td> </tr> <tr> <td>Postal Code:</td> <td>30308</td> </tr> </table>		Name:	AT&T INTELLECTUAL PROPERTY I, L.P.	Street Address:	675 WEST PEACHTREE STREET	City:	ATLANTA	State/Country:	GEORGIA	Postal Code:	30308
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PROPERTY NUMBERS Total: 1											
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CORRESPONDENCE DATA											
<p>Fax Number: (410)510-1433</p> <p>Phone: 410-286-9405</p> <p>Email: quy.le@novakdruce.com</p> <p><i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i></p> <p>Correspondent Name: NOVAK DRUCE CONNOLLY BOVE + QUIGG</p> <p>Address Line 1: 2810 LAURIAN LANE</p> <p>Address Line 4: DUNKIRK, MARYLAND 20754</p>											
ATTORNEY DOCKET NUMBER:	2012-1122										
NAME OF SUBMITTER:	QUY LE										
Signature:	/Quy Le/										

Date:

02/12/2014

**Total Attachments: 5**

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## ASSIGNMENT

WHEREAS WE, **Vaneet AGGARWAL** residing at 889 Edwards Road #C-10, Parsippany, New Jersey 07054; **Rittwik JANA** residing at 69 Albert Court, Parsippany, New Jersey 07054; **Christopher W. RICE** residing at 3 Pinecrest Lane, Parsippany, New Jersey 07054; and **Nemmara K. SHANKARANARAYANAN** residing at 18 Kershaw Court, Bridgewater, New Jersey 08807 hereafter referred to as Assignors, are listed as inventors on a patent application entitled "**SYSTEM AND METHOD FOR FULL-DUPLEX MAC TIMING MODIFICATIONS**" having AT&T Docket No. **2012-1122**, the patent application was filed in the United States Patent & Trademark Office on December 19, 2012, Serial No.: 13/720,057; 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 West Peachtree Street, Atlanta, Georgia, 30308 (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, we, as Assignors, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, our 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, WE 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, WE HEREBY covenant that we have the full right to convey the interest assigned by this Assignment, and we have not executed and will not execute any assignment, sale, license, agreement, or encumbrance in conflict with this Assignment;

AND, WE HEREBY further covenant and agree, for the Assignor and the Assignor's legal representatives, that we 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 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, WE 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 10 day of February, 2014.

*Vaneet*

Vaneet AGGARWAL

State of NJ )

County of SOMERSET )

On this 10 day of FEB 10 2014, 2014, before me a Notary Public in and for the above County and State, personally appeared Vaneet AGGARWAL, and acknowledged the execution of the foregoing assignment as his/her free act and deed for the purpose herein set forth.

*Richard Seto Yee*  
Notary Public.

My Commission Expires:

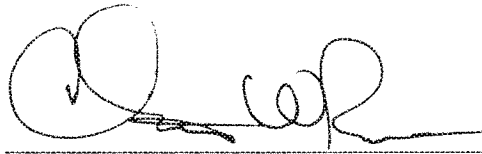
RICHARD SETO YEE  
NOTARY PUBLIC OF NEW JERSEY  
ID # 2436861  
My Commission Expires 10/22/2018

State of NJ )  
County of Somerset )  
Rittwik JANA

On this \_\_\_\_ day of **FEB 10 2014**, 2014, before me a Notary Public in and for the above County and State, personally appeared **Rittwik JANA**, and acknowledged the execution of the foregoing assignment as his/her free act and deed for the purpose herein set forth.

Richard Seto Yee  
Notary Public

My Commission Expires: **RICHARD SETO YEE**  
**NOTARY PUBLIC OF NEW JERSEY**  
**ID # 2439861**  
My Commission Expires 10/22/2018

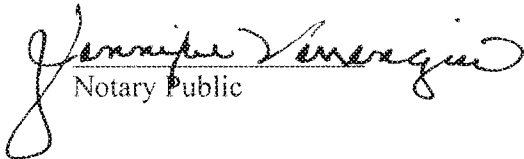


Christopher W. RICE

State of NEW JERSEY )

County of PASSAIC )

On this 6<sup>TH</sup> day of FEBRUARY, 2014, before me a Notary Public in and for the above County and State, personally appeared **Christopher W. RICE**, 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: \_\_\_\_\_

JENNIFER MARIE VERRENGIA  
NOTARY PUBLIC OF NEW JERSEY  
ID # 2437879  
My Commission Expires 8/29/2018

State of New Jersey

County of Somerset

Nemmara K. SHANKARANARAYANAN  
Nemmara K. SHANKARANARAYANAN

On this 12 day of February, 2014, before me a Notary Public in and for the above County and State, personally appeared Nemmara K. SHANKARANARAYANAN, and acknowledged the execution of the foregoing assignment as his/her free act and deed for the purpose herein set forth.

Gail Petz  
Notary Public

My Commission Expires: GAIL PETZ  
NOTARY PUBLIC OF NEW JERSEY  
ID # 2438148  
My Commission Expires 08/2015