

# PATENT ASSIGNMENT

Electronic Version v1.1

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT														
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT														
<b>CONVEYING PARTY DATA</b>															
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Name</th> <th style="width: 30%;">Execution Date</th> </tr> </thead> <tbody> <tr> <td>Jay Kumar Sundararajan</td> <td>09/06/2009</td> </tr> <tr> <td>Devavrat Shah</td> <td>11/17/2009</td> </tr> <tr> <td>Muriel Medard</td> <td>11/29/2009</td> </tr> <tr> <td>Michael Mitzenmacher</td> <td>11/06/2009</td> </tr> <tr> <td>Joao Barros</td> <td>10/25/2009</td> </tr> <tr> <td>Szymon Jakubczak</td> <td>11/15/2009</td> </tr> </tbody> </table>		Name	Execution Date	Jay Kumar Sundararajan	09/06/2009	Devavrat Shah	11/17/2009	Muriel Medard	11/29/2009	Michael Mitzenmacher	11/06/2009	Joao Barros	10/25/2009	Szymon Jakubczak	11/15/2009
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<b>RECEIVING PARTY DATA</b>															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"><b>Name:</b></td> <td>Massachusetts Institute of Technology</td> </tr> <tr> <td><b>Street Address:</b></td> <td>77 Massachusetts Avenue</td> </tr> <tr> <td><b>City:</b></td> <td>Cambridge</td> </tr> <tr> <td><b>State/Country:</b></td> <td>MASSACHUSETTS</td> </tr> <tr> <td><b>Postal Code:</b></td> <td>02139</td> </tr> </table>		<b>Name:</b>	Massachusetts Institute of Technology	<b>Street Address:</b>	77 Massachusetts Avenue	<b>City:</b>	Cambridge	<b>State/Country:</b>	MASSACHUSETTS	<b>Postal Code:</b>	02139				
<b>Name:</b>	Massachusetts Institute of Technology														
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<b>PROPERTY NUMBERS Total: 1</b>															
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<b>CORRESPONDENCE DATA</b>															
<p><b>Fax Number:</b> (508)616-9661</p> <p><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p><b>Phone:</b> 5086169660</p> <p><b>Email:</b> judi.williams@chapin-ip-law.com</p> <p><b>Correspondent Name:</b> Barry W. Chapin</p> <p><b>Address Line 1:</b> Chapin IP Law, LLC</p> <p><b>Address Line 2:</b> 1700 West Park Drive, Suite 280</p> <p><b>Address Line 4:</b> Westboro, MASSACHUSETTS 01581</p>															
<b>ATTORNEY DOCKET NUMBER:</b>	MIT09-04														

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**501032363**

**PATENT**  
**REEL: 023606 FRAME: 0875**

NAME OF SUBMITTER:

David W. Rouille

**Total Attachments: 8**

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**ASSIGNMENT**

**WHEREAS**, we, Jay Kumar Sundararajan, Devavrat Shah, Muriel Medard, Michael Mitzenmacher, Joao Barros and Szymon Jakubczak, have invented a certain improvement in **Method and Apparatus Providing Network Coding Based Flow Control** described in an application for Letters Patent of the United States, the specification of which:

- ☐ is being executed on even date herewith and is about to be filed in the United States Patent Office;
- ☒ was filed on August 28, 2009 as U.S. Application No. 12/549,925;
- ☐ was patented under U.S. Patent No. \_\_\_\_\_ on \_\_\_\_\_.

**WHEREAS**, Massachusetts Institute of Technology, a corporation organized and existing under the laws of the Commonwealth of Massachusetts and having a usual place of business at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139; President and Fellow of Harvard College, a corporation organized and existing under the laws of the Commonwealth of Massachusetts and having a usual place of business at 17 Quincy Street, Cambridge, Massachusetts 02138; and Universidade do Porto, which has a usual place of business at Reitoria da U.Porto, Praça Gomes Teixeira, 4099-002 Porto, PORTUGAL, (hereinafter "ASSIGNEES"), desire to acquire an interest therein in accordance with agreements duly entered into with us;

**NOW, THEREFORE**, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

**AND**, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

**AND**, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

**IN TESTIMONY WHEREOF**, we have hereunto set our hands and affixed our seals the date set forth below.

Date: 09/06/2009

**Jay Kumar Sundararajan**

Print full name of first inventor:

Jay Kumar Sundararajan

Residence:

10434 Caminito Alvarez  
San Diego, CA 92126

Citizenship:

INDIA

Mailing Address:

Same as above

STATE/Commonwealth of \_\_\_\_\_

COUNTY OF \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 2009, then personally appeared before me the above-named \_\_\_\_\_ known to me through satisfactory evidence of identification ☐ employee identification card; ☐ driver's license; ☐ (other) \_\_\_\_\_ to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

\_\_\_\_\_  
Notary Public

Print Name:

\_\_\_\_\_  
My Commission expires \_\_\_ / \_\_\_ / \_\_\_

Date:

Nov 17, 2009Devavrat Shah**Devavrat Shah**

Print full name of second inventor:

Devavrat Shah

Residence:

124 Langley Road  
Newton, MA 02459

Citizenship:

INDIA

Mailing Address:

Same as above

STATE/Commonwealth of \_\_\_\_\_

COUNTY OF \_\_\_\_\_

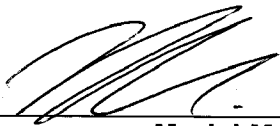
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\_\_\_\_\_  
Notary Public

Print Name:

\_\_\_\_\_  
My Commission expires \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Date:

11/24/09,**Muriel Medard**

Print full name of first inventor:

Muriel Medard

Residence:

45 Evergreen Way  
Belmont, MA 02478

Citizenship:

UNITED STATES OF AMERICA

Mailing Address:

Same as above

STATE/Commonwealth of \_\_\_\_\_

COUNTY OF \_\_\_\_\_

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\_\_\_\_\_  
Notary Public

Print Name:

\_\_\_\_\_  
My Commission expires \_\_\_ / \_\_\_ / \_\_\_

Date:

Nov 6, 2009  
Michael Mitzenmacher

Print full name of first inventor:

Michael Mitzenmacher

Residence:

33 Cary Avenue  
Lexington, MA 02421

Citizenship:

UNITED STATES OF AMERICA

Mailing Address:

Same as above

STATE/Commonwealth of \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

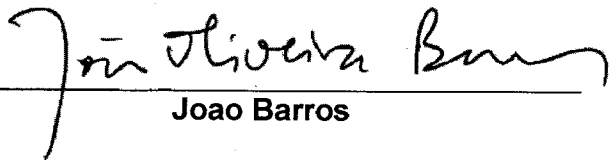
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\_\_\_\_\_  
Notary Public

Print Name:

\_\_\_\_\_  
My Commission expires \_\_\_\_ / \_\_\_\_ / \_\_\_\_



Date: 25/10/2009  
Joao Barros

Print full name of first inventor:

Joao Barros

Residence:

Rua do Campo Alegre 1266, 4 DIR  
4150-174 Porto, Portugal

Citizenship:

PORTUGAL

Mailing Address:

Same as above

STATE/COMMONWEALTH OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 2009, then personally appeared before me the above-named \_\_\_\_\_ known to me through satisfactory evidence of identification ☐ employee identification card; ☐ driver's license; ☐ (other) \_\_\_\_\_ to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

\_\_\_\_\_  
Notary Public

Print Name: \_\_\_\_\_

\_\_\_\_\_  
My Commission expires \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Date:

Nov 15, 2009  
Szymon Jakubczak

Print full name of first inventor:

Szymon Jakubczak

Residence:

17 Hunting St., Apt. 2  
Cambridge MA 02141

Citizenship:

POLAND

Mailing Address:

Same as above

STATE/Commonwealth of \_\_\_\_\_

COUNTY OF \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 2009, then personally appeared before me the above-named \_\_\_\_\_ known to me through satisfactory evidence of identification ☐ employee identification card; ☐ driver's license; ☐ (other) \_\_\_\_\_ to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

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Notary Public

Print Name:

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