

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT														
NATURE OF CONVEYANCE:	ASSIGNMENT														
CONVEYING PARTY DATA															
<table><thead><tr><th>Name</th><th>Execution Date</th></tr></thead><tbody><tr><td>Shaun Jaikarran Bharrat</td><td>01/29/2007</td></tr><tr><td>Mark Duffy</td><td>01/29/2007</td></tr><tr><td>Ronald V. Grippo</td><td>01/29/2007</td></tr><tr><td>Shiping Li</td><td>01/29/2007</td></tr><tr><td>John A. Perreault</td><td>01/29/2007</td></tr><tr><td>Jian Yang</td><td>01/29/2007</td></tr></tbody></table>	Name	Execution Date	Shaun Jaikarran Bharrat	01/29/2007	Mark Duffy	01/29/2007	Ronald V. Grippo	01/29/2007	Shiping Li	01/29/2007	John A. Perreault	01/29/2007	Jian Yang	01/29/2007	
Name	Execution Date														
Shaun Jaikarran Bharrat	01/29/2007														
Mark Duffy	01/29/2007														
Ronald V. Grippo	01/29/2007														
Shiping Li	01/29/2007														
John A. Perreault	01/29/2007														
Jian Yang	01/29/2007														
RECEIVING PARTY DATA															
Name:	Sonus Networks, Inc.														
Street Address:	7 Technology Park Drive														
City:	Westford														
State/Country:	MASSACHUSETTS														
Postal Code:	01886														
PROPERTY NUMBERS Total: 1															
<table><thead><tr><th>Property Type</th><th>Number</th></tr></thead><tbody><tr><td>Application Number:</td><td>11565940</td></tr></tbody></table>	Property Type	Number	Application Number:	11565940											
Property Type	Number														
Application Number:	11565940														
CORRESPONDENCE DATA															
Fax Number:	(617)526-9899														
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>															
Phone:	617.526.9600														
Email:	omannion@proskauer.com														
Correspondent Name:	Proskauer Rose LLP														
Address Line 1:	One International Place														
Address Line 4:	Boston, MASSACHUSETTS 02110														
ATTORNEY DOCKET NUMBER:	SNS-019A														
NAME OF SUBMITTER:	Christopher E. Everett														

CH \$40.00 11565940

PATENT

500218428

REEL: 018853 FRAME: 0415

Total Attachments: 7

source=SNS-019A#page1.tif

source=SNS-019A#page2.tif

source=SNS-019A#page3.tif

source=SNS-019A#page4.tif

source=SNS-019A#page5.tif

source=SNS-019A#page6.tif

source=SNS-019A#page7.tif

PATENT

REEL: 018853 FRAME: 0416

ASSIGNMENT

WHEREAS, We, Shaun Jaikarran Bharrat, Mark Duffy, Ronald V. Grippo, Shiping Li, John A. Perreault and Jian Yang have invented one or more inventions described in an application for Letters Patent of the United States entitled:

**FILTERING AND POLICING FOR DEFENDING AGAINST DENIAL OF SERVICE
ATTACKS ON A NETWORK**

and identified by

☐ Attorney Docket No. SNS-019A and/or executed by us on even date herewith and about to be filed in the United States Patent Office;

☒ Application No. 11/565,940 filed in the United States Patent Office on December 1, 2006; and

WHEREAS, Sonus Networks, Inc. (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of State of Delaware, and having a usual place of business at 7 Technology Park Drive, Westford, MA 01886, desires 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, our entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with our entire right, title and interest in and to said application and such Letters Patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such Letters Patent, and any right, title and interest we may have in provisional applications to which said application claims priority; said invention(s), applications 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 of our rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. We hereby acknowledge that this assignment, being of our entire right, title and interest in and to said invention(s), 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 Letters Patent to ASSIGNEE in its own name as assignee of our 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(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications;


AND, we hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved;

AND, we hereby authorize ASSIGNEE or its attorneys or agents to insert the correct serial number and filing date into this assignment, if none is indicated on the date of our execution of this assignment;

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

IN TESTIMONY WHEREOF, we have hereunto set our hands-and affixed our seals on the date(s) set forth below.

Inventor:


Shaun Jaikarran Bharrat

State/Commonwealth of NJ)
County of Monmouth) ss 597103660

On this 29 day of January, 2007, before me, the undersigned notary public, personally appeared Shaun Jaikarran Bharrat, proved to me through satisfactory evidence of identification, which were NJ Drivers license, to be the person whose name is signed on the preceding or attached document in my presence.


Notary Public

My Commission Expires: EILEEN JOZETTE QUINTANA
A NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES 9/17/2009

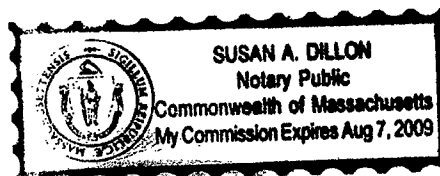
Inventor:

Mark Duffy
Mark Duffy

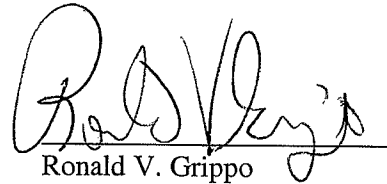
State/Commonwealth of MA)
County of MIDDLESEX) ss

On this 29th day of JANUARY, 2007, before me, the undersigned notary public, personally appeared Mark Duffy, proved to me through satisfactory evidence of identification, which were MA LIC # S22290748, to be the person whose name is signed on the preceding or attached document in my presence.

Susan A. Dillon
Notary Public
My Commission Expires: 8/7/09

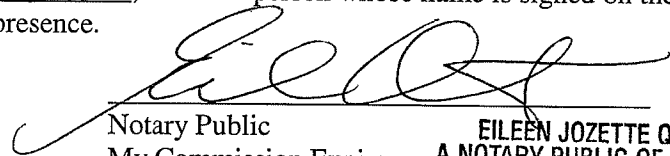


Inventor:


Ronald V. Grippo

State/Commonwealth of NJ)
County of Monmouth) ss 597103660

On this 29 day of January, 2008⁷, before me, the undersigned notary public, personally appeared Ronald V. Grippo, proved to me through satisfactory evidence of identification, which were NJ Drivers license, to be the person whose name is signed on the preceding or attached document in my presence.


Notary Public

My Commission Expires: EILEEN JOZETTE QUINTANA
A NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES 9/17/2009

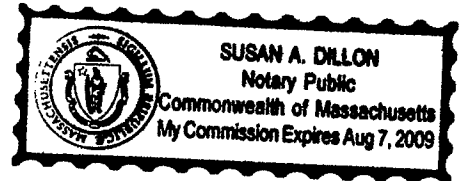
Inventor:

Shing Li
Shing Li

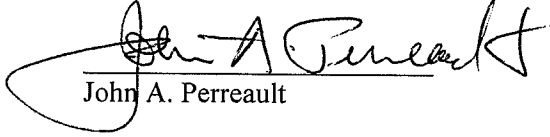
State/Commonwealth of MA)
County of MIDDLESEX) ss

On this 29th day of JANUARY, 2007, before me, the undersigned notary public, personally appeared Shing Li, proved to me through satisfactory evidence of identification, which were MA LIC # 507517908, to be the person whose name is signed on the preceding or attached document in my presence.

Susan A. Dillon
Notary Public
My Commission Expires: 8/7/09

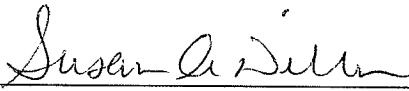


Inventor:

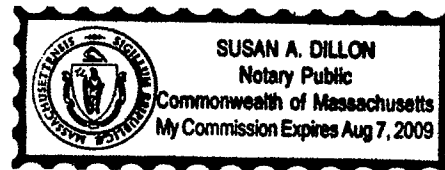

John A. Perreault

State/Commonwealth of MA)
County of MIDDLESEX) ss

On this 29th day of JANUARY, 2007, before me, the undersigned notary public,
personally appeared John A. Perreault, proved to me through satisfactory evidence of identification,
which were MA LIC # S92844107, to be the person whose name is signed on the
preceding or attached document in my presence.

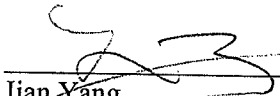

Notary Public

My Commission Expires: 8/7/09



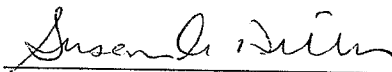
Joint Assignment
Attorney Docket No. SNS-019A
U.S. Application No. 11/565,940
Page 7 of 7

Inventor:


Jian Yang

State/Commonwealth of MA)
County of MIDDLESEX) ss

On this 29th day of JANUARY, 2007, before me, the undersigned notary public,
personally appeared Jian Yang, proved to me through satisfactory evidence of identification, which were
MA Lic # 189702076, to be the person whose name is signed on the preceding or
attached document in my presence.


Notary Public
My Commission Expires: 8/7/09

