### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3874769

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
DONALD B. GROSSER	04/02/2013
VANITHA NEELAMEGAM	04/04/2013
MARUTHAMUTHU PALANI	05/09/2013
BALASUBRAMANIAN RAMU	05/09/2013
KANNAN SELVARAJ	04/04/2013

#### **RECEIVING PARTY DATA**

Name:	EXTREME NETWORKS, INC.
Street Address:	145 RIO ROBLES
City:	SAN JOSE
State/Country:	CALIFORNIA
Postal Code:	95134

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

Property Type	Number
Application Number:	14861838

### **CORRESPONDENCE DATA**

**Fax Number:** (617)235-9492

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:** (617)951-7000

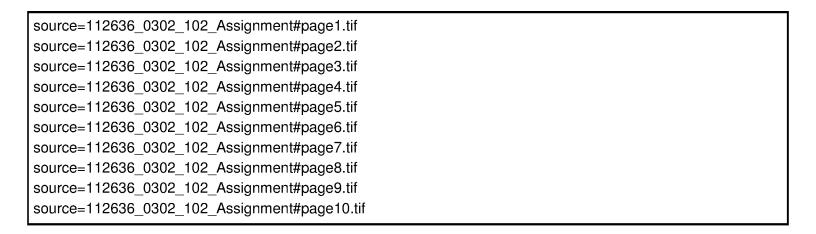
Email: Crena.Pacheco@ropesgray.com

Correspondent Name: ROPES & GRAY LLP
Address Line 1: PRUDENTIAL TOWER
Address Line 2: 800 BOYLSTON STREET

Address Line 4: BOSTON, MASSACHUSETTS 02199

ATTORNEY DOCKET NUMBER:	112636-0302-102
NAME OF SUBMITTER:	CRENA PACHECO
SIGNATURE:	/CRENA PACHECO/
DATE SIGNED:	05/16/2016
	•

**Total Attachments: 10** 



### **ASSIGNMENT**

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we, the below-named inventor(s):

# Donald B. Grosser; Vanitha Neelamegam; Maruthamuthu Palani; Balasubramanian Ramu; Kannan S. Selvaraj

hereby sell, assign, and transfer to

### **Extreme Networks, Inc.**

a Corporation of Delaware, having a principal place of business at 3585 Monroe Street, Santa Clara, California 95051 United States ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which for the non-provisional application may have a declaration executed by the undersigned prior hereto or concurrently herewith and which application (provisional or non-provisional) is entitled

#### APPARATUS AND METHOD FOR MULTICAST DATA PACKET FORWARDING

said patent application also identified as follows (when known):

[I/we hereby authorize an attorney or agent for said Assignee to insert below the application number a	and
filing date of said patent application when known.]	

United States Patent Application Number \_\_\_\_\_\_13/842,382\_ filed March 15, 2013

and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

2717P216 Page 1 of 2

Each inventor: Please Sign and Date Below:

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

<i>i</i> /	///-
4/2/13	- 410/2-
Date '	Name: Donald B. Grosser
Date	Name: Vanitha Neelamegam
Date	Name: Maruthamuthu Palani
Date	Name: Balasubramanian Ramu
Date	Name: Kannan S. Selvaraj
Date	Name:
Date	Name;
Date	Name:
Date	Name:

Assignment Document Return Address:
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
1279 Oakmead Parkway
Sunnyvale, CA 94085-4040
Telephone: (503) 439-8778

2717P216

Page 2 of 2

### <u>ASSIGNMENT</u>

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we, the below-named inventor(s):

# Donald B. Grosser; Vanitha Neelamegam; Maruthamuthu Palani; Balasubramanian Ramu; Kannan S. Selvaraj

hereby sell, assign, and transfer to

#### Extreme Networks, Inc.

a Corporation of Delaware, having a principal place of business at 3585 Monroe Street, Santa Clara, California 95051 United States ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which for the non-provisional application may have a declaration executed by the undersigned prior hereto or concurrently herewith and which application (provisional or non-provisional) is entitled

### APPARATUS AND METHOD FOR MULTICAST DATA PACKET FORWARDING

said patent application also identified as follows (when known):

[l/we hereby authorize an attorney or agent for sa	aid Assignee to insert below the	e application number and
filing date of said patent application when known.]		

United States Patent Application Number	13/842,382	filed	March 15, 2013

and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be fitted in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

2717P216

(A/A/ 2013)

Page 1 of 2

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Date	Name: Donald B. Grosser
4/4/2013	Waite
Date	Name: Vanitha Neelamegam
	Name: Mansthamisthu Palani
Date	Name: Maruthamuthu Palani
Date	Name: Balasubramanian Ramu
Date	Name: Kannan S. Selvaraj
Date	Name:
Date	· Name: A state of the second
213 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	
Date	1,4011,102
Date	Name:
	Name:
Date	
Date of Marine	Name) il secolo secolo secolo sego il troccio il con con con con con
era e la composition de la casa de la composition de la casa de la	
o video video Successiva de la compressión del compressión de la c	Name:
	Assignment Document Return Address:

2717P216

Page 2 of 2

Sunnyvale, CA 94085-4040 Telephone: (503) 439-8778

### **ASSIGNMENT**

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we, the below-named inventor(s):

# Donald B. Grosser; Vanitha Neelamegam; Maruthamuthu Palani; Balasubramanian Ramu; Kannan S. Selvaraj

hereby sell, assign, and transfer to

#### Extreme Networks, Inc.

a Corporation of Delaware, having a principal place of business at 3585 Monroe Street, Santa Clara, California 95051 United States ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which for the non-provisional application may have a declaration executed by the undersigned prior hereto or concurrently herewith and which application (provisional or non-provisional) is entitled.

### APPARATUS AND METHOD FOR MULTICAST DATA PACKET FORWARDING

said patent application also identified as follows (when known)

	ga daga kada daga daga daga daga daga da		
[I/we hereby authorize an attorney or	agent for said Assignee to insert below the application number and		
filing date of said patent application when known.]			
United States Patent Application Number	13/842.382 filed <u>March 15, 2013</u> ,		
applications, utility applications, design appli- prosecution applications, continuation-in-part applications, reexaminations, extensions, and United States and all foreign countries on a patents, reissued patents, reexamination cer	or non-provisional) and all provisional applications, non-provisional cations, divisional applications, continued applications, substitute applications, renewal applications, reissue all all other patent applications that have been or shall be filed in the any of said inventions or improvements; and in and to all original tificates, and extensions, that have been or shall be issued in the aid inventions or improvements; and in and to all rights of priority application;		

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives? to sarry out in good faith the intent and purpose of this Assignment, the undersigned will execute an order applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers, communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof, and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

n requested without dhen

and with the second contract of the second

2717P216

05/09/2013 Page 1 of 2

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

## Each Inventor: Please Sign and Date Below:

Date		Name: Donald B. Grosser
Date		Name: Vanitha Neelamegam
05-	09-2013	
Date		Name: Maruthamuthu Palani
Date	<u> </u>	Name: Balasubramanian Ramu
•		
Date		Name: Kannan S. Selvaraj
*.		
Date		Name:

Assignment Document Return Address:

BLAKELY) SOKOLOFF, TAYLOR & ZAFMAN LLP

Sunnyvale, CA 94085-4040 Telephone: (503) 439-8778

2717P216

Page 2 of 2

### **ASSIGNMENT**

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we, the below-named inventor(s):

# Donald B. Grosser; Vanitha Neelamegam; Maruthamuthu Palani; Balasubramanian Ramu; Kannan S. Selvaraj

hereby sell, assign, and transfer to

### Extreme Networks, Inc.

a Corporation of Delaware, having a principal place of business at 3585 Monroe Street, Santa Clara, California 95051 United States ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which for the non-provisional application may have a declaration executed by the undersigned prior hereto or concurrently herewith and which application (provisional or non-provisional) is entitled

# APPARATUS AND METHOD FOR MULTICAST DATA PACKET FORWARDING

said patent application also identified as follows (when known):

[I/we hereby authorize an attorney or agent for said Assig	nee to inser	t below the applic	ation number	and
filing date of said patent application when known.)		and the second		

United States P	atent Application Nun	nber 13/	842,382	file	d March 15	5, 2013
Office States in	atent Application	2 ( Jak 1881 )			Louis Salantia d	
4.1		A		Samuel mill	annilaianal annil	ications non-

and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates and extensions that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application trustices at the content of the c

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications; renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

2717P216

ic verdinava, bi<sub>sk</sub> to <sub>ver</sub> c verdinava verdinava verdinava province verdinava verdi

A CONTRACTOR OF THE PROPERTY O

en general participation of the second

Page 1 of 2

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

### Each Inventor: Please Sign and Date Below:

-		
Date		Name: Donald B. Grosser
Date		Name: Vanitha Neelamegam
Date		Name: Maruthamuthu Palani
0	5/07/13	0.2.10
Date		Name: Balasubramanian Ramu
		사람 경험 현실 (1) 전 환경하는 11 전 12
Date		Name: Kannan S. Selvaraj
		to in the gradient is a considerate gradual policy of the consideration of the considerate gradual and the con- The consideration of the consideration of th
Date		Name:
i de la companya de La companya de la co		
Date		Name Name Name Name Name Name Name Name
Date		Name:
		and the first three the state of
Date		Name:
Date		Name:
Date		Name:
Date		Name:

Assignment Document Return Address:

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Sunnyvale CA 94085-4040 Telephone (503) 439-8778

R.B. Stantis

2717P216

Page 2 of 2

### **ASSIGNMENT**

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we, the below-named inventor(s):

### Donald B. Grosser; Vanitha Neelamegam; Maruthamuthu Palani; Balasubramanian Ramu; Kannan S. Selvaraj

hereby sell, assign, and transfer to

### Extreme Networks, Inc.

a Corporation of Delaware, having a principal place of business at 3585 Monroe Street, Santa Clara, California 95051 United States ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which for the non-provisional application may have a declaration executed by the undersigned prior hereto or concurrently herewith and which application (provisional or non-provisional) is entitled

### APPARATUS AND METHOD FOR MULTICAST DATA PACKET FORWARDING

said patent application also identified as follows (when known):

United States Patent Application Number

		[]/	WE	he:	der	γaι	itho	rize	an	atte	me	y o	ac	eni	t for	sai	d P	SSE	ane	e to	m	ert	belo	w ti	30	aor	olica	illo	n n	umt	et.	and
filin	a di											kno																				
	•				r		~~	,																								

and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications design applications, divisional applications, continuation applications

applications, utility applications design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements, and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application, business, et asso.

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name, and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers, communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

o di ala li vento s Entake Sala Walasa AS all'inventions di improvent Li vapposali all'inspirenti all'iss

PATENT REEL: 038606 FRAME: 0963

Page 1 of 2

March 15, 2013

filed

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

> 0.000 500 1979 Oaks\*s

Your bear

\$7.000

Each Inventor: Please Sign and Date Below:

Date	Name: Donald B. Grosser
Date	Name: <b>Vanitha Neelamegam</b>
Date'	Name: <b>Maruthamuthu Palani</b>
Date	Name: Balasubramanian Ramu
Date  April 04 30B	Name: <b>Kannan ∰ Selvaraj</b>
Date	Some Some Name Bosely Some 1273 Calif
Date	Name: paratis
Date	Name:

Assignment Document Return Address: BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP 1279 Oakmead Parkway Sunnyvale, CA 94085-4040 Telephone: (503) 439-8778

PATENT REEL: 038606 FRÂMÊ: 0964

RECORDED: 05/16/2016