502528979 10/10/2013

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT2574239

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
LEI LUO	10/23/2007
FREDERICK A. WARE	12/18/2007
JOHN WILSON	10/23/2007
JADE M. KIZER	10/23/2007

RECEIVING PARTY DATA

Name:	RAMBUS INC.
Street Address: 1050 ENTERPRISE WAY, SUITE 700	
City:	SUNNYVALE
State/Country:	CALIFORNIA
Postal Code:	94089

PROPERTY NUMBERS Total: 1

	Property Type	Number
Α	pplication Number:	12210104

CORRESPONDENCE DATA

Fax Number: (650)938-5200 Phone: 650-335-7164 Email: jsong@fenwick.com

Correspondence will be sent via US Mail when the email attempt is unsuccessful.

Correspondent Name: JAE WON SONG

Address Line 1: **801 CALIFORNIA STREET** Address Line 2: FENWICK & WEST LLP

Address Line 4: MOUNTAIN VIEW, CALIFORNIA 94041

ATTORNEY DOCKET NUMBER:	28178-21580		
NAME OF SUBMITTER:	JAE WON SONG, REG. NO. 59,070		
	i e		

REEL: 031385 FRAME: 0767

PATENT

502528979

Signature:	/Jae Won Song/
Date:	10/10/2013
Total Attachments: 8 source=21580_US_Executed Assignment#	page2.tif page3.tif page4.tif page5.tif page6.tif page6.tif

PATENT REEL: 031385 FRAME: 0768

CORPORATE ASSIGNMENT

WHEREAS, the undersigned,

Lei Luo, 1048 Bellenden Drive, Durham, NC 27713
Frederick A. Ware, 13961 Fremont Pines, Los Altos Hills, CA 94022
John Wilson, 7620 Elliott Drive, Raleigh, NC 27613
Jade M. Kizer, 4306 Thetford Road, Durham, NC 27707

hereinafter termed "Inventor(s)", have invented certain new and useful improvements in

UTILIZING MASKED DATA BITS DURING ACCESSES TO A MEMORY

and hav	e executed a declaration or oath for an application for a United States patent disclosing and identifying the in:
	On the day of
	Or
X	Said application having Application Number 60/975,703 and filed on 27 September 2007; and
and inte invention hereina	WHEREAS, Rambus, Inc. a corporation of the State of <u>Delaware</u> , having a place of business at <u>4440 El</u> <u>Real, Los Altos, CA 94022</u> , (hereinafter termed "Assignee"), is desirous of acquiring the entire right, title rest in and to said application and the invention disclosed therein, and in and to all embodiments of the n, heretofore conceived, made or discovered jointly or severally by said Inventor(s) (all collectively ter termed "said invention"), and in and to any and all patents, inventor's certificates and other forms of on (hereinafter termed "patents") thereon granted in the United States and foreign countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Inventor(s) to have been received in full from said Assignee:

- 1. Said Inventor(s) do hereby sell, assign, transfer and convey unto said Assignee the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply for foreign patents on said invention pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all applications filed and any and all patents granted on said invention in the United States or any foreign country, including each and every application filed and each and every patent granted on any application which is a divisional, substitution, continuation, or continuation-in-part of any of said applications; and (d) in and to each and every reissue or extensions of any of said patents.
- 2. Said Inventor(s) hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and foreign countries. Such cooperation by said Inventor(s) shall include prompt production of pertinent facts and documents, giving of testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (d) for filing and prosecuting

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applications for reissuance of any said patents; (e) for interference or other priority proceedings involving said invention; and (f) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation reissues and reexaminations, opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventor(s) in providing such cooperation shall be paid for by said Assignee.

- 3. The terms and covenants of this assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventor(s), their respective heirs, legal representatives and assigns.
- 4. Said Inventor(s) hereby jointly and severally warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF,	said Inventors	have ex	xecuted a	and	delivered	this	instrument	to	said Assigned as	of
the dates written below.									Norman Public	

Lei Iluo

Oct. 23, 2007.

Date

State of North Carolina

County of Orang

On <u>/23/07</u>, before me personally appeared <u>Lei Luo</u>,

personally known to me or proved to me on the basis of satisfactory evidence, to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

(Notary Publica

Attorney Docket No. R-RA0583.Prov1.US

	State of
	County of)
Frederick A. Ware	On, before me,, personally appeared Frederick A. Ware,
Date	personally known to me or proved to me on the basis of satisfactory evidence, to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by
Date	his/her signature on the instrument the person or the entity upon behalf of which the person acted, executed the instrument.
	WITNESS my hand and official seal.
	(Notary Public) Cheryl L. Duff Notary Public
111/1	State of NOrth Carolina County of Drange Opanice County, NC My Consulsation Explices OLISTIZO10
lgkin Wilson	on 10 6207 before me, Chery L. Duff. personally appeared John Wilson,
<u>/0-23-07</u> Date	personally known to me or proved to me on the basis of satisfactory evidence, to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person or the entity upon behalf of which the person acted, executed the instrument.
	WITNESS my hand and official seal.
	Cheul All (Notary Public)

Afterney Docket No. R-RA0583.Prov1.US

CHERYL L. Duff
NOTARY Public
ORANGE COUNTY, NC
My Commission Explaiss

1 12 2 20 10

Jade M. Kizer

23/10/2007

Date

State of North Carolina

county of Orange

on 10/23/07 before me, Chent L Duff personally appeared Jade M. Kizer.

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WITNESS my hand and official seal.

VI WWY

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Frederick A. Ware, 13961 Fremont Pines, Los Altos Hills, CA 94022
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Jade M. Kizer, 4306 Thetford Road, Durham, NC 27707

hereinafter termed "Inventor(s)", have invented certain new and useful improvements in

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	UTILIZATE MASKED DATA BITS DURING ACCESSES TO A MEMORY
and hav	re executed a declaration or oath for an application for a United States patent disclosing and identifying the on:
	On the day of
	Or
<u>X</u>	Said application having Application Number 60/975,703 and filed on 27 September 2007; and
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NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Inventor(s) to have been received in full from said Assignee:

- 1. Said Inventor(s) do hereby sell, assign, transfer and convey unto said Assignee the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply for foreign patents on said invention pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all applications filed and any and all patents granted on said invention in the United States or any foreign country, including each and every application filed and each and every patent granted on any application which is a divisional, substitution, continuation, or continuation-in-part of any of said applications; and (d) in and to each and every reissue or extensions of any of said patents.
- 2. Said Inventor(s) hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and foreign countries. Such cooperation by said Inventor(s) shall include prompt production of pertinent facts and documents, giving of testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (d) for filing and prosecuting

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PATENT REEL: 031385 FRAME: 0773 applications for reissuance of any said patents; (e) for interference or other priority proceedings involving said invention; and (f) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation reissues and reexaminations, opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventor(s) in providing such cooperation shall be paid for by said Assignee.

- 3. The terms and covenants of this assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventor(s), their respective heirs, legal representatives and assigns.
- 4. Said Inventor(s) hereby jointly and severally warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, said Inventors have executed and delivered this instrument to said Assignee as of the dates written below.

	State of)	
	County of)	
Lei Luo	On, before me, personally appeared Lei Luo,	TEREN NO CONTRACTOR DE LA CONTRACTOR DE
	personally known to me or proved to resatisfactory evidence, to be the person whose restored to the within instrument and acknowledged to executed the same in his/her authorized capa	name is subscribed to me that he/she
Date	his/her signature on the instrument the person behalf of which the person acted, executed the	or the entity upor
	WITNESS my hand and official seal.	
	(Notory D. M.)	
	(Notary Public)	

Frederick A Ware	State of CALLEDANA County of SANTA OL On <u>La Le(2001</u> , before personally appeared Free	MESSEGEE, POBLIC OME, HEATHERN. MESSEGEE, POBLIC
12/18/2017 Date	 personally known to satisfactory evidence, to to the within instrument executed the same in his/her signature on the instruments. 	
HEATHER N. MESSEGEE Commission # 1792224 Notary Public - California Santa Clara County My Corran Brokes May 18, 2011	WITNESS my hand and	official seal.
	State of	>
	County of)
John Wilson	On, before repersonally appeared John personally known to restaurate the satisfactory evidence, to be	Wilson,
Date	to the within instrument executed the same in his his/her signature on the in	and acknowledged to me that he/she s/her authorized capacity, and that by instrument the person or the entity upon in acted, executed the instrument.
	WITNESS my hand and c	official seal.
	(Notary Public)	

Attorney Docket No. R-RA0583.Prov1.US

	State of)
	County of)
Jade M. Kizer	On, before me, personally appeared Jade M	
Date	personally known to me or proved to me on the basis of satisfactory evidence, to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by	
	his/her signature on the instr	rument the person or the entity upon cted, executed the instrument.
	WITNESS my hand and official seal.	
	(Notary Public)	

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PATENT REEL: 031385 FRAME: 0776