### 504053629 10/17/2016

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4100293

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
JARED LEVAN ZERBE	12/02/1999
KEVIN S DONNELLY	12/08/1999
STEFANOS SIDIROPOULOS	12/13/1999
DONALD C STARK	12/10/1999
MARK A HOROWITZ	12/10/1999
LEUNG YU	12/02/1999
ROXANNE VU	12/06/1999
BRUNO W GARLEPP	12/03/1999
JUN KIM	12/02/1999
TSYR-CHYANG HO	12/08/1999
BENEDICT CHUNG-KWONG LAU	12/02/1999

#### **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
Application Number:	15222987

#### **CORRESPONDENCE DATA**

Fax Number:

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: 408-462-8000
Email: annw@rambus.com
Correspondent Name: ANN WILLIAMS

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Address Line 4: SUNNYVALE, CALIFORNIA 94089

PATENT 504053629 REEL: 040034 FRAME: 0114

ATTORNEY DOCKET NUMBER:	RA145B75	
NAME OF SUBMITTER:	ANN WILLIAMS	
SIGNATURE:	/ann williams/	
DATE SIGNED:	10/17/2016	
Total Attachments: 6		
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PATENT REEL: 040034 FRAME: 0115

Docket No. RA-145

his is an A	ssignment of the following right	s, title and interest: (check all that apply):		
23	United States of America rights, title and interest in the invention			
8	Foreign rights, title and interest in the invention			
<b>×</b> 3	United States Patent Application Serial No. 09/421,073			
	Date of Execution: Date of Filing: October 19, 1999			
	International (PCT) Patent Ap	optication Serial No.		
	Other (specify)			
Title of the I	Invention			
BUS SYST	TEM OPTIMIZATION			
nventors (a				
	Name	Address		
Jared LeVa		431 Hilldale Drive, Woodside, California 94062		
Kevin S. D		585 Giralda Drive, Los Altos, California 94024		
	Sidiropoulos	731 Ellsworth Street, Palo Alto, California 94306		
Donald C. Stark		23375 Camino Hermoso, Los Altos Hills, California 94024		
Mark A. Ho	prowitz	1309 San Mateo Drive, Menlo Park, California 94025		
Leung Yu		2220 Homestead Court, Apt#303, Los Altos, California 94024		
Roxanne V	/@ 	5816 Southview Drive, San Jose, California 95138		
Jun Kim		6 Knot Lane, Redwood City, California 94065		
Bruno W. C		202 Ferndale Avenue, Surinyvale, California 95086		
Tsyr-Chyai		1412 Stanton Way, San Jose, California 95131		
Benedict C	Chung-Kwong Lau	630 Celebration Court, San Jose, California 95134		
4ssignee				
	Nume	Address		
RAMBUS INC		2465 Latham Street Mountain View, California 94040		
	:			

Docket No. RA-145

Whereas, we, the above-identified Inventors, have invented certain new and useful improvements in the Invention identified above and described in the above-identified patent application(s) and/or patent(s) (hereinafter referred to as "Invention");

And, whereas we desire to assign our above-identified rights, title and interest in the Invention to the above-identified Assignee;

Now, this indenture witnesseth, that for good and valuable consideration, the receipt whereof is hereby acknowledged;

We hereby assign, sell and transfer our above-identified rights, title and interest in said Invention, said application(s) as identified above, including any divisions, continuations, and continuations-in-part thereof, and in and to any and all Letters Patent of the United States, and countries foreign thereto, which may be granted or have granted for said Invention, and in and to any and all reissues and reexaminations thereof, and in and to any and all priority rights, Convention rights, and other benefits accruing or to accrue to us with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto, unto said Assignee;

And we hereby authorize and request the Commissioner of Patents and Trademarks to issue any United States Letters Patent which may issue for said Invention to said Assignee, as assignee of the whole right, title and interest thereto;

And we further agree to sign and execute all necessary and lawful future documents, including applications for foreign patents, for filing divisions, continuations and continuations-in-part of said application for patent, and/or, for obtaining any reissue or reissues of any Letters Patent which may be granted for my aforesaid Invention, as the Assignee or its Designee(s) may from time to time require and prepare at its own expense.

Inventors' Signatures (if Notarization is desired, do not sign here and proceed to next page)

Signature/Date

[Page 2 of 6]

PATENT REEL: 040034 FRAME: 0117

Docket No. RA-145

Notarization

(Although notarization is not necessary,				

at Mouritain View CA. December , in the year 1999 MICHIKO SITES State of California Commission # 1236983 Notary Public - California County of Santa Clares Santa Clora County My Comm. Expires Oct 8, 2003 Before me personally appeared Jared LeVan Zerbe who acknowledged the foregoing instrument to be a free act and deed and also represented that he or she is authorized to Zna day of December, in the year 1999 execute the same this Executed this 8th day of Décember, in the year 1999
Mountain View CA State of CALIFORNIA MICHIKO STES Commission # 1236983 Notary Public - California Country of SANTA CLARA Santa Clara County My Comm. Expires Oct 3, 2003 Before me personally appeared Kevin S. Donnelly who acknowledged the foregoing instrument to be a free act and deed and also represented that he or she is authorized to day of December, in the year 1998. 97h execute the same this Executed this 3th day of 1) comber , in the year 1999 Mountain View CA State of California MICHIKO SHIS Commission # 1236983 Notary Public - California country of Santa Charo Santa Clara County My Comm. Expires Oct 8, 2003. Before me personally appeared Stefanos Sidiropoulos who acknowledged the foregoing instrument to be a free act and deed and also represented that he or she is authorized to , in the year 1999 execute the same this 13th day of December

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**PATENT** 

Docket No. RA-145

Notarization

(Although notarization is not nece.	ssary, it will be considered p	rima facie evidence of	(execution pursuant to 35 U.S.C. 261.)

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at McCinterin View, CA.	, in the year 1999
m Mewatun View, C4.	$\sim$ $\sim$ $\sim$ $\sim$ $\sim$
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County of Santa Clara	₹ 🚉 👉 rary Public - Callomia 💈
County of Secretar Clare	Angles - coto Clara Costy
B. C	graffing they
Before me personally appeared Donald C. Stark	e act and deed and also represented that he or she is authorized to
execute the same this $10^{+12}$ day of $1000$	. Les in the year 1000
execute the same this 16 . may of 1826 5 15	100,
	MichibosSeter
	(Notary Public)
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State of Cal da a.o.	MICHIKO ISITES Commission # 1236983
	Notary Public - California
County of Sante Clark	Sonta Clara County
	My Comm. Expires Oct 8, 2003
Before me personally appeared Mark A. Horowitz	
who acknowledged the foregoing instrument to be a fre	e uct and deed and also represented that he or she is authorized to
execute the same this 10th day of Deceno	Ber in the year 1888
	Mulifa Star
	(Notary Public)
To the state of th	(Notary Unbluc)
Executed this 2 day of /2	in the year 1999, in the year
Executed this 2 day of /2	(Notary Unblue)
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	in the year 1999  Liny In
	in the year 1999  Light J11  (Signature Michiko Sites
State of Chaifernia	(Signature)  (Signature)  (Signature)  AICHIKO SITES  Commission # 1236983
state of Chaifernia	(Signature)  AICHIKO SITES Commission # 1236983 Notary Public - California
state of Chaifernia	(Signature)  (Signature)  (Signature)  AICHIKO SITES  Commission # 1236983
since of Chlifornia country of Simita Ulma	(Signature)  (Signature)  (Signature)  AICHIKO SHES Commission # 1236983 Notory Public - California Santa Clara County
State of Chaif or nia  County of Spirita Ultria  Before me personally appeared Loung Yu	(Signatu MICHIKO SITES Cornmission # 1236983 Notary Public - California Santa Ciara County My Comm. Expires Oct 8, 2003
State of Chaif or nia  County of Spirith Clinich  Before me personally appeared Loung Yu  who acknowledged the foregoing instrument to be a fre	(Signatu)  AlCHKO SITES  Commission # 1236983  Notary Public - California  Santa Clara County  My Comm. Expires Oct 8, 2003  e act and deed and also represented that he or she is authorized to
State of Chaifernia  County of Spirita Ultria  Before me personally appeared Loung Yu	(Signatu)  AlCHKO SITES  Commission # 1236983  Notary Public - California  Santa Clara County  My Comm. Expires Oct 8, 2003  e act and deed and also represented that he or she is authorized to
State of Chaif or nia  County of Spirith Clinich  Before me personally appeared Loung Yu  who acknowledged the foregoing instrument to be a fre	(Signatu)  AlCHKO SITES  Commission # 1236983  Notary Public - California  Santa Clara County  My Comm. Expires Oct 8, 2003  e act and deed and also represented that he or she is authorized to
State of Chaif or nia  County of Shorth Clorich  Before me personally appeared Loung Yu  who acknowledged the foregoing instrument to be a fre	(Signature)  AlCHKO SITES  Commission # 1236983  Notary Public - California \$ Santa Clara County  My Comm. Expires Oct 8, 2003  e act and deed and also represented that he or she is authorized to
State of $ChAifviniA$ County of $S_{bini}t_A$ $UliniA$ Before me personally appeared Leung Yu  who acknowledged the foregoing instrument to be a fre	(Signature)  AlCHKO SITES  Commission # 1236983  Notary Public - California \$ Santa Clara County  My Comm. Expires Oct 8, 2003  e act and deed and also represented that he or she is authorized to

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**PATENT** 

Docket No. RA-145

<u>Notarization</u>

(Although notarization is not necessary, it will be considered prima facie evidence of execution pursuant to 35 U.S.C. 26	31.3
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Executed this Like day of December 6	in the year 1999
" Monetzin View, CA	
* ****	- Vanneria-
47 1 F	(Signature of Inventor)
State of Latifold Collins	MICHIKO SITES
since of Calfornia county of Santa Clara	Commission # 1236983 Notary Public - Contamia
	S mitta Charo County   F My County New York Segment
Before me personally appeared Roxanne Vu	ree act and deed and also represented that he or she is authorized to
execute the same this $(a^{+}b)$ day of $(a^{+}b)$	$ap_{ef}$ in the year $2999$
\$ 7. Y. & W. W.	
	Hich He & to
	(Notary Public)
Executed this 3 cd day of December	, in the year 1999
" Mountain View, CA	
	Beno W. Forly
since of California	(Signature of Investigation Sites
Sime of Castillation	Commission # 1236983
County of Santa Clara	Santa Clara County  My Comm. Expires Oct 8, 2003
Before me personally appeared Bruno W. Garle	Same and the second of the sec
who acknowledged the foregoing instrument to be a fi	ree act and deed and also represented that he or she is authorized to
execute the same this 3000 day of Decem	10c - 10 in the year $1989$
	Michigan St.
Eventual this 3 day of 13	, in the year [949]
at Milistran View CA.	in the year 1 f f
in manufacture of the	A W
	(Signature of Invento VAICHIKO SHES
State of California	Commission # 1236983
County of Secreta Chara.	Natary Public - California ≩ Santa Clara County ▼
	My Comm, Expires Oct 8, 2003
Before me personally appeared Jun Kim	
who acknowledged the foregoing instrument to be a fixecute the same this Zhid day of Docern	ree act and deed and also represented that he or she is authorized to $\int \mathcal{L} \mathcal{L} \mathcal{L}$
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**PATENT** 

Docket No. RA-145

Notarization  (Although notarization is not necessary, it will be considered prima facie evidence of execution pursuant to 35 U.S.C. 261.)	
Executed this 8 day of Docember at Mountain View, CA	, in the year 1999 For Signay HE
state of California County of Santa Clava	MICHIKO SHES  Commission # 1936983  Notary Public - Coffornia \$  Sonta Clara County  My Commission Oct 3, 2003
Before me personally appeared Tsyr-Chyang Ho who acknowledged the foregoing instrument to be a free execute the same this STA day of Dec C4771	e act and deed and also represented that he or she is authorized to
	Michilary Pronos St.
Executed this 2 day of Describer at Moster Their View, CA.	, in the year 1999
State of California  County of Santa Clara	MICHIKO SITES Commission # 1236983 Notary Public - California \$ Santa Clara County My Comm. Expires Oct 8, 2003
Before me personally appeared Benedict Chung-Kwong Li who acknowledged the foregoing instrument to be a fre- execute the same this $2^{nd}$ day of $Decen$	au e act and deed and also represented that he or she is authorized to
	Michigan State
Executed this day of at	, in the year
State of	(Signature of Inventor)
County of Before me personally appeared	
	e act and deed and also represented that he or she is authorized to in the year
	(Notary Public)

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**RECORDED: 10/17/2016** 

PATENT