	U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office	
OMD NO. 0651-0011 exp. 5/31/2002) 10201	3829	
To the Honorable Commissioner of Patents and Trademarks.	Please record the attached original documents or copy thereof 3	
Name of conveying party(ies):	2. Name and address of receiving party(ies):	
Lawrence Ong; James C. Pang; Ning He	Name: Redback Networks Inc.	
Additional name(s) of conveying party(ies) attached?	Internal Address:	
3. Nature of Conveyance	Street Address: 250 Holger Way	
☐ Assignment ☐ Merger	- V	
☐ Security Agreement ☐ Change of Name	City: San Jose State/Provence: CA Zip: 95123 .	
Other: Nunc Pro Tunc Assignment	Country: <u>United States</u>	
Execution Date(s):	Additional name(s) & address(es) attached?	
Application Number(s) or patent number(s): If this document is being filed together with a new applica	ition, the execution date of the application is:	
A. Patent Application No.(s)	B. Patent No.(s)	
09/821,981 Additional numbers	attached? ☐ Yes ■ No	
Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 1	
Name: Blakely, Sokoloff, Taylor & Zafman LLP	7. Total Fee (37 CFR 3.41)\$40.00	
Internal Address: Daniel M. DeVos	Enclosed	
Street Address: 12400 Wilshire Boulevard, 7 th Floor	Authorized to be charged to deposit account	
City: Los Angeles State: California Zip: 90025	8. Deposit Account Number:	
	02-2666	
	(Attach duplicate copy of this page if paying by deposit account)	
DO NOT (USE THIS SPACE	
9. Statement and signature. To the best of my knowledge and believe, the foregoing is true document Output Description:	and correct and any attached copy is a true copy of the original	
Daniel M. DeVos	2/5/12	
5 5	gnature , Date	
	over sheet, attachments, and document: 6	
	vith required cover sheet information to: r of Patents, Box Assignments	

Washington, D.C. 20231

Atty Docket No. 4906P071

03/12/2002 LHUELLER 00000187 09821981

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40.00 DP

PATENT REEL: 012650 FRAME: 0778

NUNC PRO TUNC A S S I G N M E N T

Attorney's	Docket
No.:	4906P071

PATENT

This Nunc Pro Tunc Assignment is effective the <u>18th</u> day of <u>April</u>, 2001 by and between the below-identified Assignor and Assignee.

effective April 18, 2001, and in and to said application and all 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 Stated and all foreign countries on any of said 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 improvements; and in and to all rights of priority resulting from the filing of said United States application, effective April 18, 2001; and

agree that said Assignee may apply for and receive a patent or patents for said 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 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 improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives, effective April 18, 2001; and

-1-

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:	, 2001	
		Name: Lawrence Ong
Date:	, 2001 _	
		Name: James C. Pang
Date: October 25th	, 2001	份量
		Name: Ning He
Date:	, 20	
		Name:
Date:	, 20	
		Name:
Date:	, 20	
		Name:

Assignment Document Return Address: BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP 12400 Wilshire Blvd., Seventh Floor Los Angeles, California 90025-1026 (408) 720-8300

NUNC PRO TUNC ASSIGNMENT

Attorney's Docket No.: 4906P071

PATENT

This Nunc Pro Tunc Assignment is effective the <u>18th</u> day of <u>April</u>, 2001 by and between the below-identified Assignor and Assignee.

ration, the receipt of which is hereby		
the undersigned, <u>Lawrence Ong. James C. Pang, Ning He</u>		
s Inc.		
_, having a principal place of business at		
, ("Assignee"), , the entire right, title, and interest for the nd all improvements that are disclosed in the		
d concurrently herewith,		
ned Application No. <u>09/821,981</u>		
S ON A BI-DIRECTIONAL LINE		

effective April 18, 2001, and in and to said application and all 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 Stated and all foreign countries on any of said 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 improvements; and in and to all rights of priority resulting from the filing of said United States application, effective April 18, 2001; and

agree that said Assignee may apply for and receive a patent or patents for said 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 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 improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives, effective April 18, 2001; and

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: (0 25	, 2001	mely
Date:		•
Date.	, 2001	Name: James C. Pang
Date:	, 2001 _	Name: Ning He
Date:	, 20	•
Date:	, 20	
Date:	, 20	

Assignment Document Return Address: BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP 12400 Wilshire Blvd., Seventh Floor Los Angeles, California 90025-1026 (408) 720-8300

NUNC PRO TUNC ASSIGNMENT

Attorney's Docket No.: 4906P071 PATENT

This Nunc Pro Tunc Assignment is effective the <u>18th</u> day of <u>April</u>, 2001 by and between the below-identified Assignor and Assignee.

In consideration of good and valuable cons	sideration, the receipt of which is hereby	
acknowledged,		
the undersigned, <u>Lawrence Ong, James C. Pang, Ning He</u>		
hereby sell, assign, and transfer to Redback Netv	vorks Inc.	
a corporation of <u>Delaware</u>	, having a principal place of business at	
250 Holger Way, San Jose, California 95134 and its successors, assigns, and legal representati United States and all foreign countries, in and to an application for United States patent	ives, the entire right, title, and interest for the	
[_] that has been executed by the undersi	gned concurrently herewith,	
[X] that was filed March 31, 2001 and as	ssigned Application No. <u>09/821,981</u>	
and is entitled HETEROGENEOUS CONNECT	IONS ON A BI-DIRECTIONAL LINE	
SWITCHED RING		

effective April 18, 2001, and in and to said application and all 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 Stated and all foreign countries on any of said 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 improvements; and in and to all rights of priority resulting from the filing of said United States application, effective April 18, 2001; and

agree that said Assignee may apply for and receive a patent or patents for said 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 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 improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives, effective April 18, 2001; and

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:	, 2001	
Date: Oct, 25	, 2001 _	Name: James C. Pang
Date:	, 2001 _	Name: Ning He
Date:	, 20	•
Date:		
Date:	, 20	Name:

Assignment Document Return Address: BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP 12400 Wilshire Blvd., Seventh Floor Los Angeles, California 90025-1026 (408) 720-8300

Rev. 6/07/01 (Nunc Pro Tunc)

PATENT REEL: 012650 FRAME: 0784

RECORDED: 02/25/2002