PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Douglas Neal Rowitch	04/15/2009
Zoltan Biacs	04/21/2009
Ravikumar Dandu	05/07/2009
Donovan Trisko	04/17/2009
Jie Wu	04/16/2009
John Delucchi	04/20/2009
Grant Alexander Marshall	04/20/2009
Ashok Bhatia	05/07/2009

RECEIVING PARTY DATA

Name:	QUALCOMM Incorporated
Street Address:	5775 Morehouse Drive
Internal Address:	Patent Department/Central Administration
City:	San Diego
State/Country:	CALIFORNIA
Postal Code:	92121

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12464793

CORRESPONDENCE DATA

Fax Number: (858)658-2502

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

Phone: 858-845-4265

Email: patent.docketing.us@qualcomm.com
Correspondent Name: QUALCOMM INCORPORATED

Address Line 1: 5775 MOREHOUSE DR.

Address Line 4: SAN DIEGO, CALIFORNIA 92121

PATENT

REEL: 022677 FRAME: 0321

\$40,00 1246479

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ATTORNEY DOCKET NUMBER:	082052
NAME OF SUBMITTER:	Thomas W. Coyne
Total Attachments: 21	
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PATENT REEL: 022677 FRAME: 0322

TO WHOM IT MAY CONCERN:

For the sum of One Dollar and other valuable consideration to us in hand paid, receipt of which is hereby acknowledged, be it known that I/We,

- Douglas Neal Rowitch, a citizen of the United States, having a place of residence at 2009
 De Mayo Road Del Mar, CA 92014-3309, USA; and
- Zoltan Biacs, a citizen of the United States, having a place of residence at 1516
 Cedarwood Drive San Mateo, CA 94403, USA; and
- Ravikumar Varma Dandu, a citizen of India, having a place of residence at 10558
 Gaylemont Lane, San Diego, CA 92130, USA; and
- 4. Donovan Trisko, a citizen of the United States, having a place of residence at 10976 Baroque Lane, San Diego, CA 92124, USA; and
- Jie Wu, a citizen of China, having a place of residence at 3775 Torry View Court San Diego, CA 92130, USA; and
- 6. John Delucchi, a citizen of the United States, having a place of residence at 508 California Street Santa Cruz, CA 95060, USA; and
- 7. Grant Alexander Marshall, a citizen of the United States, having a place of residence at 694 Jeffrey Avenue Campbell, CA 95008, USA; and
- 8. Ashok Bhatia, a citizen of India, having a place of residence at 3680 Marlesta Drive San Diego, CA 92111, USA;

have sold, assigned and transferred and by these presents do sell, assign, transfer and set over unto QUALCOMM Incorporated, a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-1714, its successors, legal representatives, or assigns, the entire right, title and interest in and to a certain invention relating to SYSTEMS, METHODS, AND COMPUTER PROGRAM PRODUCTS FOR REFRESHING DATA by us devised and the application for United States Patent therefore filed in the United States Patent and Trademark Office on 5/2/09, assigned Application Number 2464793 (and we hereby authorize and instruct QUALCOMM Incorporated to hereafter complete this Assignment by inserting the filing date and serial number in the space provided when known), including,

The Commissioner of Patents and Trademarks is requested to issue the Letters Patent which may be granted for said invention or any part thereof unto said corporation in keeping with this Assignment.

Done at Del Mar, California this 15th day of April, 2009.	
•	Douglas Neal Rowitch
Done at San Mateo, California this	
	Zoltan Biacs
Done at San Diego, California this	day of, 2009.
•	Rayikumar Dandu

The Commissioner of Patents and Trademarks is requested to issue the Letters Patent which may be granted for said invention or any part thereof unto said corporation in keeping with this Assignment.

Done at San Diego, California this	day of	, 2009.
<u>-</u>	Donovan	Trisko
Done at San Diego, California this	day of	, 2009.
	Jie Wu	
Done at Santa Cruz, California this	day of	, 2009.
	John Del	ucchi
Done at Campbell, California this	day of	, 2009.
	Grant A	lexander Marshall
Done at San Diego, California this	day of	, 2009.
	Ashok B	hatia

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Page 1 of 4

The Commissioner of Patents and Trademarks is requested to issue the Letters Patent which may be granted for said invention or any part thereof unto said corporation in keeping with this Assignment.

Done at Del Mar, California this	day of, 2009.
	Douglas Neal Rowitch
Done at San Mateo, California this	2/ day of 100l, 2009.
	Zoltan Biacs
Done at San Diego, California this	day of, 2009.
	Ravikumar Dandu

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Done at San Diego, California this	day of	, 2009.
-	Donovan	1 Trisko
Done at San Diego, California this	day of	, 2009.
~	Jie Wu	
Done at Santa Cruz, California this	day of	, 2009.
-	John Del	ucchi
Done at Campbell, California this	day of	, 2009.
-		exander Marshall
Done at San Diego, California this	day of	, 2009.
	Ashok Ri	natia

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 unto QUALCOMM Incorporated, a Delaware corporation, having a place of business at 5775
 Morehouse Drive, San Diego, California 92121-1714, its successors, legal representatives, or
 assigns, the entire right, title and interest in and to a certain invention relating to SYSTEMS,
 METHODS, AND COMPUTER PROGRAM PRODUCTS FOR REFRESHING DATA by
 us devised and the application for United States Patent therefore filed in the United States Patent
 and Trademark Office on 5/12/09, assigned Application Number 1244/193 (and we
 hereby authorize and instruct QUALCOMM Incorporated to hereafter complete this Assignment
 by inserting the filing date and serial number in the space provided when known), including,

The Commissioner of Patents and Trademarks is requested to issue the Letters Patent which may be granted for said invention or any part thereof unto said corporation in keeping with this Assignment.

Done at Del Mar, California this	day of	, 2009.	
•	Dougla	s Neal Rowitch	······
Done at San Mateo, California this	day of	, 2009.	
	Zoltan)	Biaes	
Done at San Diego, California this	7 th day of _N	1ay, 2009.	
	Ravilari	ti. nar Dandu	***************************************

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Done at San Diego, California this	day of	, 2009.
,	Donovar	ı Trisko
Done at San Diego, California this	day of	, 2009.
. •	Jie Wu	
Done at Santa Cruz, California this	day of	, 2009.
	John Del	lucchi
Done at Campbell, California this	day of	, 2009.
·		exander Marshall
Done at San Diego, California this	7_day of _MA	<u>}</u>
~	. A44	
÷	Ashok Bl	natia

PATENT Attorney Docket No. 082052

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PATENT Altorney Docket No. 082052

without limitation, all provisional patent applications, including Provisional Application Number 61/120,017 filed on December 04, 2008, and all original and reissue patents granted thereof (in the United States and any foreign country), and all divisions, and continuations thereof, including the subject matter of any and all claims which may be obtained in every such patent, and all foreign rights to said invention, and covenant that I/we have full right to do so, and agree that I/we will communicate to said corporation or its representatives all facts known to me/us respecting said invention, whenever requested, and testify in any legal proceedings, sign all lawful papers, make all rightful oaths and generally do everything possible to aid said corporation, its successors, assigns and nominees, to obtain and enforce proper patent protection for said invention in all countries.

The Commissioner of Patents and Trademarks is requested to issue the Letters Patent which may be granted for said invention or any part thereof unto said corporation in keeping with this Assignment.

	nnanannoooooooooo	
	Douglas	Neal Rowitch
Done at San Mateo, California this	day of	, 2009.
	Zoltan E	
Done at San Diego, California this	day of	, 2009.
vo	······································	***************************************
	Pavilenn	ner Dandn

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Done at San Diego, California this _/	<u> </u>	<u>r. / ,</u> 2009,
	Do	noon Tuik
	Donovai	n Trisko
Done at San Diego, California this	day of	, 2009.
	Jie Wu	,
Done at Santa Cruz, California this	day of	, 2009.
	John De	lucchi
Done at Campbell, California this	day of	, 2009.
	Grant Alexander Marshall	
Done at San Diego, California this	day of	, 2009.
-	Ashok B	hatia

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-	Nowalac.	Nool Blowita
	Dugas	Neal Rowitch
Done at San Mateo, California this	day of	, 2009.
	Zoltan B	iacs
one at San Diego, California this	day of	, 2009.

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Done at San Diego, California this _	day of	, 2009.	
	Donovan		
Done at San Diego, California this	16 day of AC	, 2009.	
	<u> </u>	· Cl	
	Jie Wu		
Done at Santa Cruz, California this	day of	, 2009.	
	John Del	ıcchi	
Done at Campbell, California this	day of	, 2009.	
Grant Alexander Marshall			
Done at San Diego, California this _	day of	, 2009.	
	Ashok Bl	atia	

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Page 1 of 4

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	Douglas Neal Row	itch
Done at San Mateo, California this	day of, 200	09.
. -	Zoltan Biacs	
Done at San Diego, California this	day of, 200	99.
	Ravikumar Dandu	

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Done at San Diego, California this	day of	, 2009.	
	Donovar	Trisko	
Done at San Diego, California this	day of	, 2009.	
	Jie Wu		
Done at Santa Cruz, California this _	Oday of	DVI , 2009.	
	John De	lucchi	
Done at Campbell, California this	day of	, 2009.	
	Grant A	lexander Marshall	
Done at San Diego, California this	day of	, 2009.	
	Ashok B	hatia	

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Page 1 of 3

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Done at Del Mar, California this	day of	, 2009.
~	Douglas N	eal Rowitch
Done at San Mateo, California this	day of	, 2009,
	Zoltan Bia	
Done at San Diego, California this	day of	, 2009.
~	Ravikuma	r Dandu

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Done at San Diego, California this _	day of	, 2009.
	Jie Wu	
Done at Santa Cruz, California this	day of	, 2009.
	John Del	
Done at Campbell, California this <u></u>	<u> </u>	
	See Line	lexander Marshall
Done at San Diego, California this _	day of	, 2009.
	Ashok B	hatia

Page 3 of 3

PATENT REEL: 022677 FRAME: 0343

RECORDED: 05/13/2009