## PATENT ASSIGNMENT

## Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:		NEW ASSIGNMENT	NEW ASSIGNMENT	
NATURE OF CONVE	YANCE:	ASSIGNMENT	ASSIGNMENT	
CONVEYING PARTY	DATA	<u>, , , , , , , , , , , , , , , , , , , </u>		
		Name	Execution Date	
Derick J. Clack			07/10/2009	
Bryan D. Vergato			07/07/2009	
Mark D. Bertoglio			07/09/2009	
Shaun Botha			07/20/2009	
Edward E. Buchwalte	er		07/09/2009	
Guillaume F. Rava			07/10/2009	
Yuir Kiryanov			07/17/2009	
Thomas Richard Bog	art		07/15/2009	
Michael A. Passinsky			07/10/2009	
Internal Address: City: State/Country: Postal Code:	Seattle	WASHINGTON		
PROPERTY NUMBER	RS Total: 1			
Property T	уре	Num	nber	
Application Number:		12494728		
CORRESPONDENCE Fax Number: <i>Correspondence will I</i> Phone: Email: Correspondent Name	(206)682 <i>be sent via US</i> 206-622 janicek@	Mail when the fax attempt is unsucces	ssful.	
Address Line 1:	701 FIF	TH AVENUE		
			PATENT	

500963106

# REEL: 023235 FRAME: 0841

Address Line 2: SUITE 5400 Address Line 4: SEATTLE, WA	SHINGTON 98104
ATTORNEY DOCKET NUMBER:	910150.403
NAME OF SUBMITTER:	E. Russell Tarleton
Total Attachments: 8         source=910150_403_ASSIGNMENT#page1.tif         source=910150_403_ASSIGNMENT#page2.tif         source=910150_403_ASSIGNMENT#page3.tif         source=910150_403_ASSIGNMENT#page4.tif         source=910150_403_ASSIGNMENT#page5.tif         source=910150_403_ASSIGNMENT#page6.tif         source=910150_403_ASSIGNMENT#page7.tif         source=910150_403_ASSIGNMENT#page8.tif	

#### ASSIGNMENT

WHEREAS, we, Derick J. Clack, Bryan D. Vergato, Mark D. Bertoglio, Shau Botha, Edward E. Buchwalter, Guillaume F. Rava, Yuri Kriyanov, Thomas Richard Bogart, and Michael A. Passinsky (hereinafter referred to as ASSIGNORS), having mailing addresses of 222 W. Comstock Street, Seattle, Washington 98119; 5230 SW Forest Street, Seattle, Washington 98116, 1623 34th Avenue, Seattle, Washington 98122, 7409 Woodlawn Avenue NE, Seattle, Washington 98115, 2233 102nd Place SE, Bellevue, Washington 98004, 12026 10th Avenue NW, Seattle, Washington 98177, 9910 NE 137th Street, C309, Kirkland, Washington 98034, 203 W. Comstock Street, Apt. 5, Seattle, Washington 98119, and 2516 14th Avenue W., #308, Seattle, Washington 98119, respectively, are the joint inventors of an invention entitled "METHOD, APPARATUS, SYSTEM, AND ARTICLE OF MANUFACTURE FOR RELIABLE LOW-BANDWIDTH INFORMATION DELIVERY ACROSS MIXED-MODE UNICAST AND MULTICAST NETWORKS," as described and claimed in the specification for which an application for United States letters patent was filed on June 30, 2009, and assigned Application No. 12/494,728; and an international application was filed on June 30, 2009, and assigned Application No. PCT/US2009/049181. This application claims the benefit of U.S. Provisional Application No. 61/077,413, filed on July 1, 2008 and U.S. Provisional Application No. 61/101,466, filed on September 30, 2009.

WHEREAS, Twisted Pair Solutions, Inc. (hereinafter referred to as ASSIGNEE), a corporation of the State of Washington having a place of business at 3131 Elliott Avenue, Suite 200, Seattle, Washington 98121, is desirous of acquiring the entire right, title and interest in and to the patent application and in and to any letters patent(s) that claim the priority benefit of the patent application in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign and transfer unto said ASSIGNEE the entire right, title and interest in and to said invention, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions including any extensions or adjustments in term thereof and in any and all foreign countries, and in any and all divisions, reissues and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and

its successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNORS had this assignment, transfer and sale not been made. ASSIGNORS hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNORS agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on said invention, for litigation regarding letters patent, or for the purpose of protecting title to said invention or letters patent therefor.

This assignment is considered effective as of June 29, 2009.

7/10/2009	E S
Date / -	Derick J. Clack
State of Washington	SS.
County of Mohomital	55.

I certify that I know or have satisfactory evidence that Derick J. Clack is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.



Dated SU	ly 10, 2009
Signature of Notary Public	Kasa Ann Waltin
Printed Name	Sara Ann Watkins
My appointmen	t expires Aug 5, 7010
	¢ ^

7/7/04		BOU.
Date		Bryan D. Vergato
State of Washington	)	
County of Snohom. Sh	) ss. )	

I certify that I know or have satisfactory evidence that Bryan D. Vergato is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be the free and voluntary act for the uses and purposes mentioned in the instrument.

ANN WALL	Dated duly 7,2009
NOTARY PUBLIC	Signature of Notary Public <u>Scree Ann Walking</u>
F F A 99/08/2019	Printed Name Sara Ann Watkins
CF WASHING	My appointment expires Aug 5, 2010
7/9/09	MAL
Date	Mark D. Bertoglio
State of Uchipaton	<u>~)</u>
County of Sondham. Bl	) SS. A)

I certify that I know or have satisfactory evidence that Mark D. Bertoglio is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.



Dated	ly 9, 2009
Signature of Notary Public	Sara Ann Wattins
Printed Name	Sara Ann Watkins
My appointmen	texpires Aug 5 2010
	$\mathcal{Q}$

	P
7/20/09	
Date	Shaun Botha
State of WASHINGTON)	
County of Shottomish	SS.

I certify that I know or have satisfactory evidence that Shaun Botha is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his **the** and **vocuntary** act for the uses and purposes mentioned in the instrument.



I certify that I know or have satisfactory evidence that Edward E. Buchwalter is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.



Dated	$\underline{}$	dy_	9,	<u>200</u>	29	~~~~		
Signatu Notary 1		$\underline{\mathcal{S}}_{\mathcal{O}}$	Urc.	A	nn	Was	Ikin	يل
Printed	Name	Sa	ra	An	Û	Jatk	ins	
My app	ointmen	t expires	AL	19	5	2010	)	
				Q				

7/10/2009	fuillance Rava
Date	Guillaume F. Rava
State of Uhshington)	SS.
County of Snohomisk (	

,

I certify that I know or have satisfactory evidence that Guillaume F. Rava is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be bit fines and voluntary act for the uses and purposes mentioned in the instrument.

NOTARY PUBLIC OF WASHING	Dated Sury 10, 2009 Signature of Notary Public Sara Ann Walking Printed Name Sara Ann Walking My appointment expires Aug 5, 2010
Date	Yuri Kiryanov
State of	)
County of	) SS)

I certify that I know or have satisfactory evidence that Yuri Kiryanov is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

3

Dated	
Signature of Notary Public	
Printed Name	
My appointment expires	······································

5

7-15-09			
Date			Tł
State of Washington	)		
County of Snohomish	)	ss.	

1 Kaland bogant homas Richard Bogart

I certify that I know or have satisfactory evidence that Thomas Richard Bogart is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged the behis free and voluntary act for the uses and purposes mentioned in the instrument.

STATISTICS CON CLARE T	Dated July 15, 2009
PUBLIC 2	Signature of Notary Public Sara Ann Watkins
The second working	Printed Name Sara Ann Watkins
WASHING WASHING	My appointment expires and 5, 2010
7/10/2009	Milielian
Date	Michael A. Passinsky
State of Washing for County of Shoherry	$(\sim)$ ss.

I certify that I know or have satisfactory evidence that Michael A. Passinsky is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.



Dated Suly 10, 2009
Signature of
Notary Public X (Use Sm Ulasun
Printed Name Sara Ann Watkins
My appointment expires <u>Aug 5 2010</u>
O

Date	Guillaume F. Rava
State of)	
County of ) s	SS.

I certify that I know or have satisfactory evidence that Guillaume F. Rava is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

	Dated
	Signature of Notary Public
	Printed Name
	My appointment expires
7/17/2009 Date	Yuri/Kiryanov
State of	) SS.
County of	)

I certify that I know or have satisfactory evidence that Yuri Kiryanov is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

3

Dated			
Signature of Notary Public	See	attached	
Printed Name			
My appointmen	it expires	: :	

5

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

ate of California	<b>}</b> .
ounty of Santa Clara	
7/17/09 before me,	larc Friedman, Notary Public Here Insert Name and Tille of the Officer
Date Yuri Kir	$\dot{\gamma}$ Here Insert Name and Title of the Officer $\dot{\gamma}$
rsonally appeared IMF   KIY	Name(s) of Signer(s)
MARC FRIEDMAN Commission # 1852937 Notary Public - California Santa Clara County My Comm. Expires Jun 7, 2013	<ul> <li>who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorize capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf or which the person(s) acted, executed the instrument.</li> <li>I certify under PENALTY OF PERJURY under the law of the State of California that the foregoing paragraph true and corfect.</li> <li>WITNESS my hand and official seal Machine Machi</li></ul>
Place Notary Seal Above	TIONAL
The state is formation below is not required by Jaw	<i>y</i> , it may prove valuable to persons relying on the document treattachment of this form to another document.
ille or Type of Document: Patent	's Filing
	Number of Pages: _5
Document Date:	(Minibol of t ages
Signer(s) Other Than Named Above:	
Capacity(ies) Claimed by Signer(s)	
Signer's Name:	Signer's Name:
] Individual	🗋 Individual
] Corporate Officer — Title(s):	Corporate Officer Title(s):
] Partner — [] Limited [] General	Perint Partner — Climited General RIGHT THUMBPR
L Attorney in Fact	Top of thumb he
] Trustee	
] Guardian or Conservator	Guardian or Conservator
] Other:	Other:
	Signer Is Representing:
Signer Is Representing:	Signer is hepresenting.
1	

REEL: 023235 FRAME: 0850

# RECORDED: 09/15/2009