

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT2981510

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
MICHAEL SHEHA	09/30/2011
MARK GODDARD	10/10/2011
JOHN ARCHER	09/29/2011
GERMAINE EWING	09/30/2011
GOPAL VENKATRAMAN	10/07/2011
TOM BYCHOWSKI	11/23/2011
NIDHI UPPARAPALLI	11/28/2011
RYAN PETERSON	10/29/2011
KRISTY MCNIGHT	10/13/2011
STEVEN PETILLI	10/04/2011
JAM PAYDAVOUSI	09/20/2011
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	TELECOMMUNICATION SYSTEMS, INC.
<b>Street Address:</b>	275 WEST STREET
<b>City:</b>	ANNAPOLIS
<b>State/Country:</b>	MARYLAND
<b>Postal Code:</b>	21401
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14106057
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>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.</i>	
<b>Phone:</b>	2022611000
<b>Email:</b>	bollman@mdslaw.com
<b>Correspondent Name:</b>	TELECOMMUNICATION SYSTEMS, INC.
<b>Address Line 1:</b>	275 WEST STREET
<b>Address Line 4:</b>	ANNAPOLIS, MARYLAND 21401
<b>ATTORNEY DOCKET NUMBER:</b>	40176

PATENT

<b>NAME OF SUBMITTER:</b>	WILLIAM H. BOLLMAN
<b>SIGNATURE:</b>	/William H. Bollman/
<b>DATE SIGNED:</b>	08/14/2014
<b>Total Attachments: 15</b> source=Assignment-40176#page1.tif source=Assignment-40176#page2.tif source=Assignment-40176#page3.tif source=Assignment-40176#page4.tif source=Assignment-40176#page5.tif source=Assignment-40176#page6.tif source=Assignment-40176#page7.tif source=Assignment-40176#page8.tif source=Assignment-40176#page9.tif source=Assignment-40176#page10.tif source=Assignment-40176#page11.tif source=Assignment-40176#page12.tif source=Assignment-40176#page13.tif source=Assignment-40176#page14.tif source=Assignment-40176#page15.tif	

## ASSIGNMENT AND AGREEMENT

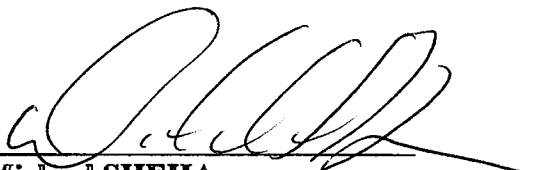
For value received, we, Michael A. SHEHA, of 18 Havenhurst Drive in Coto De Caza in the County of Orange and State of California; Mark GODDARD, of 9 Legacy Way in Rancho Santa Margarita in the County of Orange and State of California; John ARCHER, of 709 Turtle Crest Drive in Irvine in the County of Orange and State of California; Germaine EWING, of 2491 Glenbush Circle in Corona in the County of Riverside County and State of California; Gopal VENKATRAMAN, of 308 Quail Ridge in Irvine in the County of Orange and State of California; Tom BYCHOWSKI, of 27 Giotto in Aliso Viejo in the County of Orange and State of California; Nihi UPPAROPALLI, of 1626 Longview Drive in Diamond Bar in the County of Los Angeles and State of California; Ryan PETERSON, of 324 17<sup>th</sup> Avenue E in Seattle in the County of King County and State of Washington; Kristy McKNIGHT, of 188 Momarch Bay Drive in Dana Point in the County of Orange and State of California; Steven PETILLI, of 31671 Avenida Evita in San Juan Capistrano in the County of Orange and State of California; Jam PAYDAVOUSI, of 280 Cagney Lane in Newport in the County of Orange and State of California; hereby sell, assign and transfer to TeleCommunication Systems, Inc., a corporation of the State of Maryland, having an office at 275 West Street, Suite 400, Annapolis, Maryland, 21401, U.S.A., and its successors, assigns and legal representatives, the entire right, title and interest, for the United States of America, in and to certain inventions related to PERSONAL WIRELESS NAVIGATION SYSTEM, described in an application for Letters Patent of the United States, filed on May 23, 2011 as U.S. Appl. No. 13/067,292, and all the rights and privileges in said application and under any and all Letters Patent that may be granted in the United States for said inventions; and we also concurrently hereby sell, assign and transfer to TeleCommunication Systems, Inc. the entire right, title and interest in and to said inventions for all countries foreign to the United States, including all rights of priority arising from the application aforesaid, and all the rights and privileges under any and all forms of protection, including Letters Patent, that may be granted in said countries foreign to the United States for said inventions.

We authorize TeleCommunication Systems, Inc. to make application for such protection in its own name and maintain such protection in any and all countries foreign to the United States, and to invoke and claim for any application for patent or other form of protection for said inventions, without further authorization from us, any and all benefits, including the right of priority provided by any and all treaties, conventions, or agreements.

We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of TeleCommunication Systems, Inc. to apply for patent or other form of protection for said inventions and to claim the aforesaid benefit of the right of priority.

We request that any and all patents for said invention be issued to TeleCommunication Systems, Inc. in the United States and in all countries foreign to the United States, or to such nominees as TeleCommunication Systems, Inc. may designate.

We agree that, when requested, we shall, without charge to TeleCommunication Systems, Inc. but at its expense, sign all papers, and do all acts which may be necessary, desirable or convenient in connection with said applications, patents, or other forms of protection.

  
**Michael SHEHA**

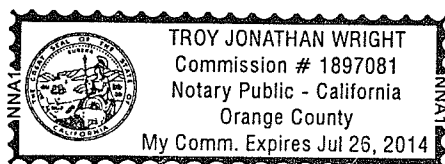
Date: 30-SEPT-2011

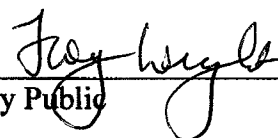
United States of America )

State of California ) ss.:

County of Orange )

On this 30<sup>th</sup> day of September, 2011, before me personally came **Michael SHEHA**, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.



  
 Notary Public

  
Mark GODDARD

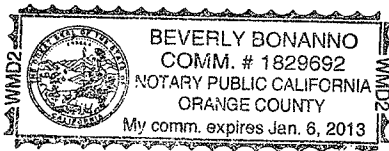
Date: October 10, 2011

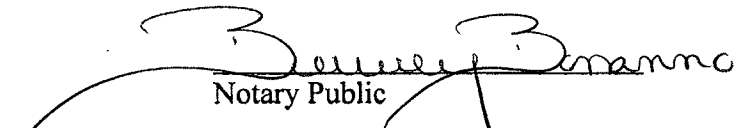
United States of America )

State of California ) ss.:

County of Orange )

On this 10 day of October, 2011, before me personally came **Mark GODDARD**, to me ~~known~~<sup>known</sup> to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.



  
Notary Public

  
John ARCHER

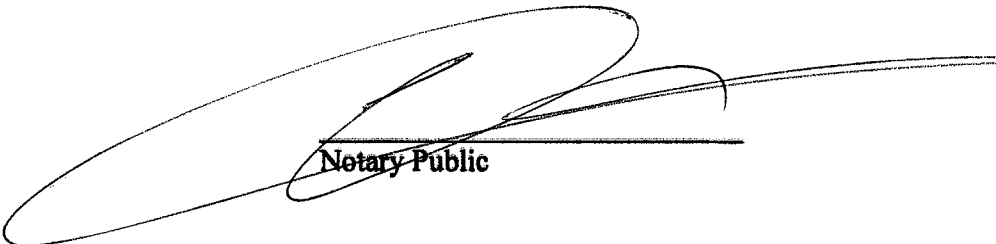
Date: 9/29/11

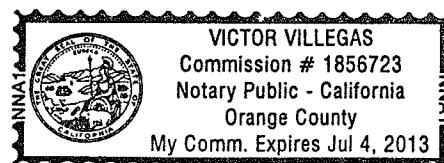
United States of America )

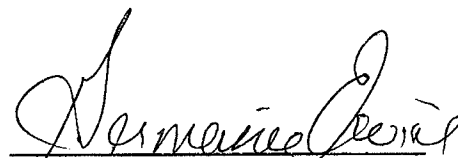
State of California ) ss.:

County of Orange )

On this 29<sup>th</sup> day of September, 2011, before me personally came **John ARCHER**, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

  
Notary Public



  
Germaine EWING

Date: 9/30/11

United States of America )

State of ) ss.:

County of )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2011, before me personally came  
**Germaine EWING**, to me known to be the individual described in and who executed the  
foregoing instrument, and acknowledged execution of the same.

\_\_\_\_\_  
Notary Public

*see attached  
mmc 9-20-11*

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

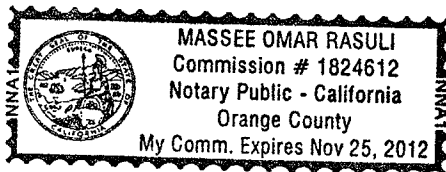
CIVIL CODE § 1189

State of California

County of orange.

On 9-30-11 before me, Massee Omar Rasuli (notary public.)  
Date Here Insert Name and Title of the Officer

personally appeared Germaine Ewing  
Name(s) of Signer(s)



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 authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: [Signature]  
Signature of Notary Public

Place Notary Seal Above

## OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

### Description of Attached Document

Title or Type of Document: \_\_\_\_\_

Document Date: \_\_\_\_\_ Number of Pages: 1

Signer(s) Other Than Named Above: \_\_\_\_\_

### Capacity(ies) Claimed by Signer(s)

Signer's Name: \_\_\_\_\_ Signer's Name: \_\_\_\_\_

☐ Corporate Officer — Title(s): \_\_\_\_\_ ☐ Corporate Officer — Title(s): \_\_\_\_\_

☐ Individual ☐ Individual

☐ Partner — ☐ Limited ☐ General ☐ Partner — ☐ Limited ☐ General

☐ Attorney in Fact ☐ Attorney in Fact

☐ Trustee ☐ Trustee

☐ Guardian or Conservator ☐ Guardian or Conservator

☐ Other: \_\_\_\_\_ ☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_ Signer Is Representing: \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER  
Top of thumb here

RIGHT THUMBPRINT  
OF SIGNER  
Top of thumb here

PATENT

REEL: 033534 FRAME: 0498



V. Gopal  
Gopal VENKATRAMAN

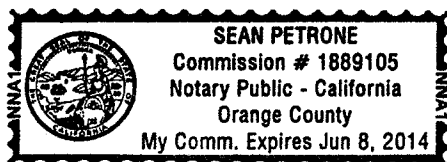
Date: October 7, 2011

United States of America )

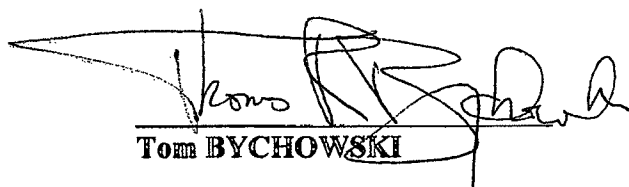
State of California ) ss.:

County of Orange )

On this 7<sup>th</sup> day of October, 2011, before me personally came Gopal VENKATRAMAN, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.



[Signature]  
Notary Public

  
Tom BYCHOWSKI

Date: Nov 23, 2011

United States of America )

State of California ) ss.:

County of Orange )

On this 23 day of November, 2011, before me personally came Tom BYCHOWSKI, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.



  
Notary Public

20-395

*Nidhi Upparopalli*  
\_\_\_\_\_  
Nidhi UPPAROPALLI

Date: 11/28/2011

United States of America )

State of California ) ss.:

County of Orange )

On this 28 day of November, 2011, before me personally came Nidhi UPPAROPALLI, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.



*Stefano Anthony Bonanno*  
\_\_\_\_\_  
Notary Public

  
\_\_\_\_\_  
**Ryan PETERSON**

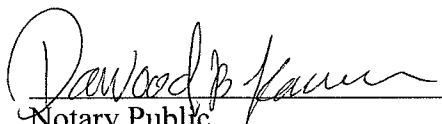
Date: 10/29/2011

United States of America )

State of Washington ) ss.:

County of King )

On this 29th day of October, 2011, before me personally came **Ryan PETERSON**, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

  
\_\_\_\_\_  
Notary Public

20-395

  
\_\_\_\_\_  
**Kristy McNIGHT**

Date: 10/13/11

United States of America )

State of ) ss.:

County of )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2011, before me personally came **Kristy McNIGHT**, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

\_\_\_\_\_  
Notary Public

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of OrangeOn 10/13/11

before me,

Here Insert Name and Title of the Officer

personally appeared

Name(s) of Signer(s)



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~~(s)~~ she~~(s)~~ they executed the same in his~~(s)~~ her~~(s)~~ their authorized capacity~~(ies)~~, and that by his~~(s)~~ her~~(s)~~ their signature~~(s)~~ on the instrument the person~~(s)~~ or the entity upon behalf of which the person~~(s)~~ acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature:

Signature of Notary Public

Place Notary Seal and/or Stamp Above

## OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

### Description of Attached Document

Title or Type of Document:

Document Date:

Number of Pages:

Signer(s) Other Than Named Above:

### Capacity(ies) Claimed by Signer(s)

Signer's Name:

Signer's Name:

☐ Corporate Officer — Title(s):☐ Corporate Officer — Title(s):☒ Individual☐ Individual☐ Partner — ☐ Limited ☐ General☐ Partner — ☐ Limited ☐ General☐ Attorney in Fact☐ Attorney in Fact☐ Trustee☐ Trustee☐ Guardian or Conservator☐ Guardian or Conservator☐ Other: \_\_\_\_\_☐ Other: \_\_\_\_\_

Signer Is Representing:

Signer Is Representing:

**Steven PETILLI**

Date: \_\_\_\_\_

United States of America )

State of ) ss.:

County of )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2011, before me personally came **Steven PETILLI**, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

see attached (BT)  
Notary Public

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

State of California

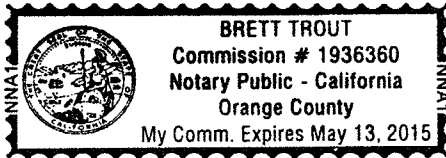
County of Orange

On 10/4/11 before me, Brett Trout (Notary public)

Here Insert Name and Title of the Officer

personally appeared Stephen G. Petilli

Name(s) of Signer(s)



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 authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: Brett Trout

Signature of Notary Public

Place Notary Seal Above

## OPTIONAL

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### Description of Attached Document

Title or Type of Document: \_\_\_\_\_

Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

### Capacity(ies) Claimed by Signer(s)

Signer's Name: \_\_\_\_\_ Signer's Name: \_\_\_\_\_

☐ Corporate Officer — Title(s): \_\_\_\_\_ ☐ Corporate Officer — Title(s): \_\_\_\_\_

☐ Individual ☐ Individual

☐ Partner — ☐ Limited ☐ General ☐ Partner — ☐ Limited ☐ General

☐ Attorney in Fact ☐ Attorney in Fact

☐ Trustee ☐ Trustee

☐ Guardian or Conservator ☐ Guardian or Conservator

☐ Other: \_\_\_\_\_ ☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_ Signer Is Representing: \_\_\_\_\_

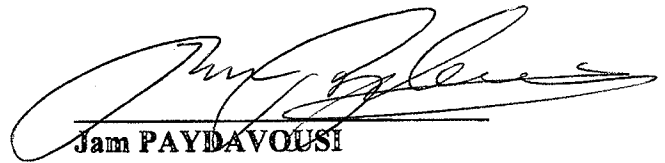
RIGHT THUMBPRINT OF SIGNER

Top of thumb here

RIGHT THUMBPRINT OF SIGNER

Top of thumb here

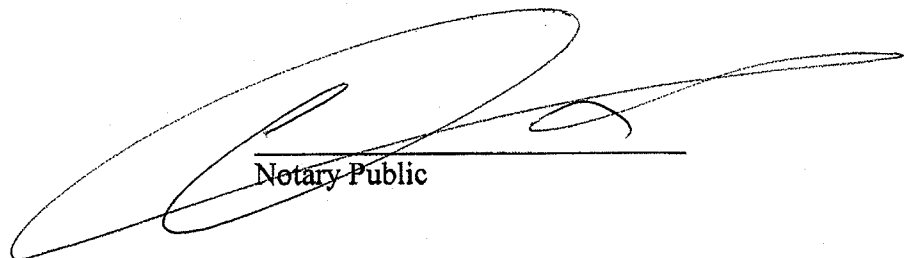


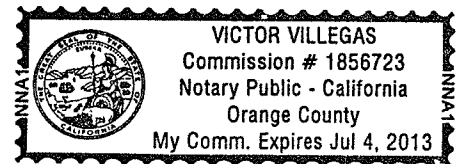
  
Jam PAYDAVOUSI

Date: 9/20/2011

United States of America                    )  
State of California                        ) ss.:  
County of Orange                        )

On this 20<sup>th</sup> day of September, 2011, before me personally came  
Jam PAYDAVOUSI, to me known to be the individual described in and who executed the  
foregoing instrument, and acknowledged execution of the same.

  
Notary Public



TeleCommunication Systems, Inc.  
275 West Street, Suite 400  
Annapolis, MD 21401