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| BOX ASSIGNMENTS  | AUG 1 8 201                   | <u>u</u> 08-20  | )-2010   | DO NOT USE F                               | OR TRADEMARKS                           |
| RE T   |                               |   |  |  |   |
| TO THE DIRECTOR OF THE U.S. PATER SIR: PLEASE RECORD THE ATTACHEL 103604768 . HEREOF.  |                               |   |  |  |   |
| 1. NAME OF CONVEYING PARTY(IES) (ASSIGNOR(S)):   |                               |   |  |  |   |
| 1. Yinjun ZHU; 2. John Gordon HINES  |                               |   |  |  |   |
| ADDITIONAL NAME(S) OF CONVEYING PARTY(IES) ATTACHED? YES X NO  |                               |   |  |  |   |
| 2. PARTY(IES) (ASSIGNEE(S)) RECEIVING INTEREST:  |                               |   |  |  |   |
| NAME: TeleCommunication Systems, Inc.  |                               |   |  |  |   |
| ADDRESS: 275 West Street, Suite 400, Annapolis, Maryland 21401  ADDITIONAL NAME(S) & ADDRESS(ES) ATTACHED?  YES  X NO  |                               |   |  |  |   |
|  |                               |   |  |  |   |
| NATURE OF CONVEYANCE (DOCUMENT):     (Submit herewith <u>only one document</u> for recordation – multiple copies of same Assignment signed by different inventors is <u>one</u> document.) |                               |   |  |  |   |
| X ASSIGNMENT OF: X WHOLE PART INTEREST EXEC. DATE: April 5, 2006   |                               |   |  |  |   |
| CHANGE OF NAME VERIFIED TRANSLATION  |                               |   |  |  |   |
|  |                               |   |  |  |   |
| SECURITY MERGER OTHER:   |                               |   |  |  |   |
| 4. EXECUTION DATES(S) ON THE DECLARATION IF FILED HEREWITH: April 5, 2006  |                               |   |  |  |   |
| (NOTE: IF DATES ↑↓ DIFFER, SEE ATTORNEY!!)   |                               |   |  |  |   |
| 4.5 APPL. OR PATENT NUMBER(S) – OTHERS ON ADD'L SHEET(S) ATTACHED?  YES X NO   |                               |   |  |  |   |
| A. PAT. APP. NO.(S) series code/serial no.   | MATTER #                      | 1ST INVENTOR if not in item 1   | B. PATENT NO(S)  | MATTER #                                   | 1ST INVENTOR if not in item 1           |
| 12/805,201   | 20-334                        | ZHU   |  |  |   |
| Name & Address of Party to Whom Correspondence     Concerning Document Should be Mailed:   |                               |   | 6. NUMBER INVOLVED:<br>APPLNS <u>1</u> + PATS = TOTAL <u>1</u>   |  |   |
| MANELLI DENISON & SELTER PLLC<br>2000 M Street, NW, 7 <sup>th</sup> Floor<br>Washington, DC 20036  |                               |   | 7. AMOUNT OF FEE ENCLOSED: (Code 581)  |  |   |
| 5.5 ATTORNEY DOCKET:   |                               | 8. IF ABOVE FEE IS MISSING OR INADEQUATE, CHARGE INSUFFICIENCY TO DEPOSIT ACCOUNT NUMBER: 50-0687 |  |  |   |
| 20-334   |                               |   | UNDER ORDER NO: 20-334   |  | 20-334                                  |
|  |                               | ENT REFERENCE   | duplicate sheet not require  | duplicate sheet not required CLIENT/MATTER |   |
| 9. STATEMENT AND SIGNATURE: To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.           |                               |   |  |  |   |
| correct and any attached   | GNATURE: To copy is a true of | the best of my knowle<br>copy of the original do  | edge and belief, the for   | egoing informatio                          | n is true and                           |
| correct and any attached   | copy is a true o              | copy of the original doc  | edge and belief, the for cument.  10. Total numbær/m//pa   | nges including bis                         | ¥2 50968/ 1280520                       |
| Correct and any attached   | Copy is a true of             | copy of the original doc  | edge and belief, the for<br>cument.<br>10. Total number at/pa<br>cover sheet, attachman                            | ages <u>includion</u> ion                  | ¥2 50968/ 1280520                       |
| correct and any attached   | Copy is a true of             | copy of the original doc  | edge and belief, the for cument.  10. Total numbær/m//pa   | ages <u>includion</u> ion                  | ₹2 50968/ 1280528                       |
| Attorney: William H. Boll  | Copy is a true of             | copy of the original doc  | edge and belief, the for<br>cument.  10. Total number of pa<br>cover sheet, attachmen<br>(do not file duplicate co | ages <u>includion</u> ion                  | <b>1</b> 2 50060/ 1280520<br>A <b>4</b> |

FILE WITH PTO RETURN RECEIPT

**PATENT** 

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## ASSIGNMENT AND AGREEMENT

For value received, we, ZHU, Yinjun, of Sammamish, in the County of King and State of Washington and HINES, Gordon John of Seattle, in the County of King and the State of Washington 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 MOBILE BASED AREA EVENT HANDLING WHEN CURRENTLY VISITED NETWORK DOES NOT COVER AREA, described in an application for Letters Patent of the United States, filed herwith, 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.

ì

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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.

Orinjun ZHU

Date: April 5, 2006

United States of America (US)

State of Wa 534-52-2399) ss.:

County of King

On this \_\_\_\_\_ day of \_\_\_\_\_\_, 2006, before me personally came Yinjun ZHU, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.



Mary & Hehert

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Gordon John HENES

Date: April 5, 2006

United States of America

State of WA 534-52-2399 ss.:

County of King

On this 5 day of April, 2006, before me personally came Gordon John HINES, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.



Merry & Kebeck

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

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**RECORDED: 08/18/2010**