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U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below. 1. Name of conveying party(ies) 2. Name and address of receiving party(ies) 1) Ashutosh DUTTA; 2) Victor FAJARDO; 3) Yoshihiro OBA; and Name: Toshiba America Research, Inc. 4) Kenichi TANIUCHI Internal Address: 3. Nature of conveyance/Execution Date(s): Street Address: 1 Telcordia Drive, Suite 1A257 Execution Date(s) All executed on October 16, 2006 ✓ Assignment Merger City: Piscataway Security Agreement Change of Name Joint Research Agreement State: New Jersey Government Interest Assignment Country:___ Zip:08854 Executive Order 9424, Confirmatory License Other Additional name(s) & address(es) attached? Yes 4. Application or patent number(s): This document is being filed together with a new application A. Patent Application No.(s) B. Patent No.(s) 11/279,856 Additional numbers attached? Yes V No 5. Name and address to whom correspondence 6. Total number of applications and patents concerning document should be mailed: involved: one (1) Name: Stephen B. Parker 7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00 Internal Address: Docket No. 3119.122B ✓ Authorized to be charged by credit card Authorized to be charged to deposit account **Enclosed** Street Address: 1250 Connecticut Avenue, N.W., Suite 700 None required (government interest not affecting title) 8. Payment Information City: Washington 8 a. Credit Card Last 4 Numbers 9017 State: District of Columbia Zip:20036-2657 Expiration Date 10/2010 Phone Number: (202) 419-1518 b. Deposit Account Number Fax Number: (202) 318-4261 Authorized User Name Email Address: parker@w-pd-a.com 9. Signature: Signature Date Total number of pages including cover Stephen B. Parker sheet, attachments, and documents: Name of Person Signing Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:

Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

PATENT REEL: 018853 FRAME: 0197

TWO ADDITIONAL NAMES/ADDRESSES OF RECEIVING PARTIES FOR RECORDATION FORM COVERSHEET (PATENTS)

Second Assignee

Name: Telcordia Technologies, Inc.

Street Address: 1 Telcordia Drive, Suite 05G0116

City: Piscataway

State: New Jersey

Country: USA Zip: 08854

Third Assignee

Name: Kabushiki Kaisha Toshiba

Street Address: 72, Horikawa-Cho, Saiwai-Ku

Province: Kanagawa-Ken

City: Kawasaki-shi

Country: Japan

PATENT REEL: 018853 FRAME: 0198

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ASSIGNMENT

WHEREAS, the below-signed individual(s) am/are the inventor(s) (hereinafter, ASSIGNORS) of an invention in FRAMEWORK OF MEDIA-INDEPENDENT PRE-AUTHENTICATION IMPROVEMENTS: INCLUDING CONSIDEDRATIONS FOR FAILED SWITCHING AND SWITCHBACK, for which I/we have executed an application for Letters Patent of the United States on even date herewith, or, if filed after the filing date of such application for Letters Patent of the United States, said filing date of such application being April 14, 2006, and relating to application Serial No. 11/279,856;

WHEREAS, Toshiba America Research, Inc., incorporated in the state of New Jersey, with a place of business at 1 Telcordia Drive, Suite 1A257, Piscataway, New Jersey 08854 (hereinafter, ASSIGNEE #1) has received and is desirous of obtaining jointly with the below-listed ASSIGNEE #2 the entire right, title and interest in, to and under the said invention and the said application within the territories of the United States;

Telcordia Technologies, Inc., a corporation of the state of Delaware, with a place of business at 1 Telcordia Drive, Suite 05G0116, Piscataway, New Jersey (hereinafter, ASSIGNEE #2) has received and is desirous of obtaining jointly with the above-listed ASSIGNEE #1 the entire right, title and interest in, to and under the said invention and the said application within the territories of the United States and has received and is desirous of of obtaining jointly with the below-listed ASSIGNEE #3 the entire right, title and interest in, to and under the said invention within countries foreign to the territories of the United States;

Kabushiki Kaisha Toshiba, incorporated in Japan, with a place of business at 72, Horikawa-Cho, Saiwai-Ku, Kawasaki-shi, Kanagawa-Ken, Japan (hereinafter, ASSIGNEE #3) has received and is desirous of obtaining jointly with the above-listed ASSIGNEE #2 the entire right, title and interest in, to and under the said invention and the said application within countries foreign to the territories of the United States;

My/our entire right, title and interest worldwide have been and are now to be sold, assigned, transferred and set over to said Assignee #1, Assignee #2 and Assignee #3 (ASSIGNEE #1, ASSIGNEE #2 and ASSIGNEE #3 hereinafter collectively referred to as ASSIGNEES) under the terms herein.

- NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to me/us in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, I/we the said ASSIGNORS has/have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over:
- a) (United States) jointly unto the said **ASSIGNEE #1** and **ASSIGNEE #2**, their successors, legal representatives and assigns, the entire right, title and interest in, to and under the said invention within the territories of the United States, and the said application and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and I/we hereby authorize and

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request the Commissioner of Patents of the United States, whose duty it is to issue patents on applications as aforesaid, to issue all United States Letters Patents for said invention jointly to the said ASSIGNEE #1 and ASSIGNEE #2, their successors, legal representatives and assigns, in accordance with the terms this instrument; and

b) (Countries Foreign to the United States) jointly unto the said ASSIGNEE #2 and ASSIGNEE #3 all applications for Letters Patent which may hereafter be filed for said invention in any country or countries foreign to the United States, and all Letters Patent which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof and all rights of priority in any such country or countries based upon the filing of the said application for Letters Patent of the United States which are created by any law, treaty or international convention, and I/we hereby authorize and request any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for any Country Foreign to the United States for said invention jointly to the said ASSIGNEE #2 and ASSIGNEE #3, their successors, legal representatives and assigns, in accordance with the terms this instrument;.

AND I/WE HEREBY covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND I/WE HEREBY further covenant and agree that we will communicate to said ASSIGNEES, their successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid the said ASSIGNEES, their successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention in all countries.

IN TESTIMONY WHEREOF, we, the below-listed ASSIGNORS, hereunto set our hands and seals the day and year set opposite our respective signatures.

Date 10/16/, 2008 AShirk Stuff

Printed Name: Ashutosh DUTTA

Address: 349 Greent

Signature Signature

Printed Name: Victor FAJARDO

Address: <u>IA HICKOKY WAY</u>
ROBBINSVILLE NU 08691

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Date	yeshtuw elex-	Address: 10 Second St. Englewood Cirffs NJ 07632 Uct. 18.	2006
	•	Signature	
		Printed Name: Yoshihiro OBA	
		Address: 10 Second St. Fuglewood Clitts, HJ 07632	
Date	H. Tank	oct. 16	2006
		Signature	
		Printed Name: Kenichi TANIUCHI Address: 444 Washington Blvd, Jersey City, NJ 07310	#5 4 2E

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