504371279 05/17/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4417973

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date	
FENG LI	05/15/2017	
DAHAI REN	05/14/2017	
MING CHEN	05/15/2017	

RECEIVING PARTY DATA

Name:	VERIZON PATENT AND LICENSING INC.	
Street Address:	ONE VERIZON WAY	
City:	BASKING RIDGE	
State/Country:	NEW JERSEY	
Postal Code:	07920	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15597243

CORRESPONDENCE DATA

Fax Number: (703)439-2658

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.

Phone: 571-297-0007 Email: pto@snyderllp.com

SNYDER, CLARK, LESCH & CHUNG, LLP **Correspondent Name:**

Address Line 1: 950 HERNDON PARKWAY

Address Line 2: **SUITE 365**

Address Line 4: HERNDON, VIRGINIA 20170

ATTORNEY DOCKET NUMBER:	20170130	
NAME OF SUBMITTER:	DAVID A. SUMY	
SIGNATURE:	/David A. Sumy, Reg. No. 50,387/	
DATE SIGNED:	05/17/2017	
	This document serves as an Oath/Declaration (37 CFR 1.63).	

Total Attachments: 3

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PATENT REEL: 042409 FRAME: 0626 504371279

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PATENT REEL: 042409 FRAME: 0627

VZ Docket No.: 20170130

DECLARATION AND ASSIGNMENT FOR PATENT APPLICATION

Patent Application Title: HARDWARE IDENTIFICATION-BASED SECURITY AUTHENTICATION SERVICE FOR 16T **DEVICES**

the patent application for which: It is being filed concurrently herewith, Application Number to be assigned by the USPTO, or It was filed on as United States Application Number or PCT International Application Number
Declaration of Inventor
As the below named inventor, I hereby declare that:
 the above-identified application was made or authorized to be made by me; I believe that I am the original inventor or an original joint inventor of a claimed invention in the above-referenced application; and I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.
Inventor Assignment Acknowledgement
For good and valuable consideration, the receipt of which is hereby acknowledged, I agree as follows:
A. I hereby assign to the Verizon legal entity identified below ("Assignee"), including its successors and assigns, my entire worldwide right, title and interest in and to any and all inventions and other ideas described in the above-identified patent application as well as in and to said application and all divisional, continuing (in whole or in part), substitute, renewal, reissue, provisional or other applications or registrations for Letters Patent which have been or shall be filed in the United States and all foreign countries based on any of said inventions or ideas, or based on or claiming priority to said application; and in and to all original and reissued Letters Patent which have been or shall be issued in the United States and foreign countries from any of said applications or registrations; and in and to all rights of priority resulting from the filing of any of said applications or registrations (all collectively, the "Patent Rights"). Letters Patent as used herein shall include, without limitation, patents, utility models, industrial designs, and any other form of industrial property recognized under the Paris Convention for the Protection of Industrial Property.
B. I agree (i) that Assignce may apply for and receive Letters Patent based on the Patent Rights in its own name; (ii) that I will execute all rightful oaths, declarations, assignments, powers of attorney and other papers related to the Patent Rights when requested by Assignee (or its successors and/or assigns) without compensation (but at Assignee's expense), (iii) that I appoint Assignee (acting through its representatives) as my attorney-in-fact, such appointment being irrevocable and coupled with the interest in the Patent Rights, with full authority in my place and stead and in my name to take any action and to execute any document which Assignee may deem reasonably necessary or advisable to accomplish the purposes of this assignment, including the execution and filing of the papers identified in part (ii) in my name where permitted by law; (iv) to communicate to Assignee, its successors, assigns, representatives and agents, all facts known to me relating to said Patent Rights and the history thereof; and (v) to generally do everything which Assignce, its successors, assigns, representatives or agents shall consider desirable for aiding in securing and maintaining proper protection for said Patent Rights and for vesting title to said Patent Rights in Assignce, its successors and assigns.
C. I covenant with Assignce, its successors and assigns, that no assignment, grant, mortgage, license, or other agreement affecting the Patent Rights has been made to others by me, and that full right to convey the same as set forth herein is possessed by me.
ASSIGNEE: Verizon Patent and Licensing Inc., a Delaware Corporation with a place of business at One Verizon Way, Basking Ridge, NI 07920 US
IN WITNESS to my agreement to the foregoing Declaration of Inventor and Inventor Assignment Acknowledgement, I have executed as set forth below:
Full legal name of Inventor: Feng Li
Address: 38 Arcola Street, Lexington, MA 02420

Date: <u>03/15/24/7</u>

PATENT

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VZ Docket No.: 20170130

DECLARATION AND ASSIGNMENT FOR PATENT APPLICATION

Patent Application Title: HARDWARE IDENTIFICATION-BASED SECURITY AUTHENTICATION SERVICE FOR LCT
DEVICES

the patent application for whi	ch:			
is being filed concurrently	herewith,	Application Number to be a	ssigned by the USPTO, or	
was filed on	as United	States Application Number	or PCT International A	pplication
Number				

Declaration of Inventor

As the below named inventor, I hereby declare that:

- the above-identified application was made or authorized to be made by me;
- I believe that I am the original inventor or an original joint inventor of a claimed invention in the above-referenced application; and
- I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine
 or imprisonment of not more than five (5) years, or both.

Inventor Assignment Acknowledgement

For good and valuable consideration, the receipt of which is hereby acknowledged, I agree as follows:

- A. I hereby assign to the Verizon legal cutity identified below ("Assignee"), including its successors and assigns, my entire worldwide right, title and interest in and to any and all inventions and other ideas described in the above-identified patent application, as well as in and to said application and all divisional, continuing (in whole or in part), substitute, renewal, reissue, provisional or other applications or registrations for Letters Patent which have been or shall be filled in the United States and all foreign countries based on any of said inventions or ideas, or based on or claiming priority to said application; and in and to all original and reissued Letters Patent which have been or shall be issued in the United States and foreign countries from any of said applications or registrations; and in and to all rights of priority resulting from the filing of any of said applications or registrations (all collectively, the "Patent Rights"). Letters Patent as used herein shall include, without limitation, patents, utility models, industrial designs, and any other form of industrial property recognized under the Paris Convention for the Protection of Industrial Property.
- B. I agree (i) that Assignee may apply for and receive Letters Patent based on the Patent Rights in its own name; (ii) that I will execute all rightful caths, declarations, assignments, powers of attorney and other papers related to the Patent Rights when requested by Assignee (or its successors and/or assigns) without compensation (but at Assignee's expense),; (iii) that I appoint Assignee (acting through its representatives) as my attorney-in-fact, such appointment being irrevocable and coupled with the interest in the Patent Rights, with full authority in my place and stead and in my name to take any action and to execute any document which Assignee may deem reasonably necessary or advisable to accomplish the purposes of this assignment, including the execution and filing of the papers identified in part (ii) in my name where permitted by law; (iv) to communicate to Assignee, its successors, assigns, representatives and agents, all facts known to me relating to said Patent Rights and the history thereof; and (v) to generally do everything which Assignee, its successors, assigns, representatives or agents shall consider desirable for aiding in securing and maintaining proper protection for said Patent Rights and for vesting title to said Patent Rights in Assignee, its successors and assigns.
- C. I covenant with Assignee, its successors and assigns, that no assignment, grant, mortgage, license, or other agreement affecting the Patent Rights has been made to others by me, and that full right to convey the same as set forth herein is possessed by me.

ASSIGNEE: Verizon Patent and Licensing Inc., a Delaware Corporation with a place of business at One Verizon Way, Basking Ridge, NJ 07920 US

IN WITNESS to my agreement to the foregoing Declaration of Inventor and Inventor Assignment Acknowledgement, I have executed as set forth below:

Full legal name of inventor: Dahai Ren

Address: 8 Boyce Farm Road, Lincoln, MA 01773

Signature: // / / /

Date: 5.14.2-17

PATENT REEL: 042409 FRAME: 0629

VZ Docket No.: 20170130

PATENT

REEL: 042409 FRAME: 0630

DECLARATION AND ASSIGNMENT FOR PATENT APPLICATION

RECORDED: 05/17/2017

Patent Application Title: HARDWARE IDENTIFICATION-BASED SECURITY AUTHENTICATION SERVICE FOR 161

<u>DEVICES</u>
the patent application for which: is being filed concurrently herewith, Application Number to be assigned by the USPTO, or was filed on as United States Application Number or PCT International Application Number
Declaration of Inventor
As the below named inventor, I hereby declare that
 the above-identified application was made or authorized to be made by me; I believe that I am the original inventor or an original joint inventor of a claimed invention in the above-referenced application; and I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both
Inventor Assignment Acknowledgement
For good and valuable consideration, the receipt of which is hereby acknowledged, I agree as follows:
A I hereby assign to the Verizon legal entity identified below ("Assignee"), including its successors and assigns, my entire worldwide right, title and interest in and to any and all inventions and other ideas described in the above-identified patent application, as well as in and to said application and all divisional, continuing (in whole or in part), substitute, renewal, reissue, provisional or other applications or registrations for Letters Patent which have been or shall be filed in the United States and all foreign countries based on any of said inventions or ideas, or based on or claiming priority to said application; and in and to all original and reissued Letters Patent which have been or shall be issued in the United States and foreign countries from any of said applications or registrations; and in and to all rights of priority resulting from the filing of any of said applications or registrations (all collectively, the "Patent Rights"). Letters Patent as used herein shall include, without limitation, patents, utility models, industrial designs, and any other form of industrial property recognized under the Paris Convention for the Protection of Industrial Property.
B. I agree (i) that Assignce may apply for and receive Letters Patent based on the Patent Rights in its own name; (ii) that I will execute all rightful oaths, declarations, assignments, powers of attorney and other papers related to the Patent Rights when requested by Assignee (or its successors and/or assigns) without compensation (but at Assignee's expense) (iii) that I appoint Assignee (acting through its representatives) as my attorney-in-fact, such appointment being irrevocable and coupled with the interest in the Patent Rights, with full authority in my place and stead and in my name to take any action and to execute any document which Assignee may door reasonably necessary or advisable to accomplish the purposes of this assignment, including the execution and filing of the papers identified in part (ii) in my name where permitted by law; (iv) to communicate to Assignee, its successors, assigns, representatives and agents, all facts known to me relating to said Patent Rights and the Instory thereof, and (v) to generally do everything which Assignee, its successors, assigns, representatives or agents shall consider desirable for aiding in securing and maintaining proper protection for said Patent Rights and Patent Rights in Assignee, its successors and assigns
Care I coverant with Assignee, its successors and assigns, that no assignment, grant, mortgage, license, or other agreement affecting the Patent Rights has been made to others by me, and that full right to convey the same as set forth herein is possessed by me.
ASSIGNEE: Verizon Patent and Licensing Inc., a Delaware Corporation with a place of business at One Verizon Way, Basking Ridge, NJ 07920 US
IN WITNESS to my agreement to the foregoing Declaration of Inventor and Inventor Assignment Acknowledgement, I have executed as set forth below:
Full legal name of Inventor: Ming Chen
Address: 9 Meeting House Circle Redford, MA 01730
Signature 1/2/2/17