505781573 11/19/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT5828399

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JEFFREY RULE	08/05/2019
JAMES ASHFIELD	08/07/2019
SRINIVASA CHIGURUPATI	08/05/2019
KEVIN OSBORN	08/06/2019

RECEIVING PARTY DATA

Name:	CAPITAL ONE SERVICES, LLC	
Street Address:	1680 CAPITAL ONE DRIVE	
City:	MCLEAN	
State/Country:	VIRGINIA	
Postal Code:	22102	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16688447

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	067519.0002458
NAME OF SUBMITTER:	ANDREW D. KASNEVICH
SIGNATURE:	/Andrew D. Kasnevich/
DATE SIGNED:	11/19/2019

Total Attachments: 3

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> **PATENT** REEL: 051053 FRAME: 0794 505781573

ASSIGNMENT AND DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION

I am an inventor (referred to below as Assignor) of an invention entitled:

SYSTEMS AND METHODS FOR CRYPTOGRAPHIC AUTHENTICATION OF CONTACTLESS CARDS

filed herewith. Capital One Services, LLC, a corporation of Delaware whose post office address is 1680 Capital One Drive, McLean, VA 22102 (hereinafter referred to as Assignee), desires to obtain an assignment of this invention;

THEREFORE, for good and valuable consideration, I have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over to Assignee, its successors and assigns, my entire right, title, and interest in and to this invention, patent Application No. 16/534,813 _______, filled _____August 7, 2019 _____, and this application, and all divisions, and continuations thereof, and all Letters Patent of the United States which may be granted thereon, and all reissues and reexaminations thereof, and all rights to claim priority in any foreign country on the basis of the above provisional application (if any), as well as all rights to claim priority on the basis of this application in any foreign country, all rights and benefits under any applicable treaty or convention, and all applications for Letters Patent which may become filed for this invention in any foreign country and all Letters Patent which may be granted on this invention in any foreign country, and all extensions, renewals, reexaminations and reissues thereof; and I authorize and request the Director of the United States Patent and Trademark Office (USPTO) and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent for this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment;

AND, I covenant that I have the full right to convey the interest assigned by this Assignment, and I have not executed and will not execute any agreement in conflict with this Assignment;

AND, I further covenant and agree that I will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to me respecting this invention, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee, its successors or assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid Assignee, its successors and assigns, to obtain and enforce proper patent protection for this invention in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

AND, I authorize and request that the attorneys having Power of Attorney in this application, insert here in parentheses (Application No. 16/534,813 , filed August 7, 2019) the filing date and application number of said application when known.

DECLARATION:

As a named inventor below, I declare that: (1) This declaration is directed to the above-identified application;

- (2) the above-identified application was made or authorized to be made by me;
- (3) my residence and mailing address are as stated below next to my name; and
- (4) I believe I am an original inventor or an original joint inventor of a claimed invention in the application. I acknowledge that any willful false statements made in this declaration are punishable by fine or imprisonment of not more than five (5) years, or both, under section 1001 of Title 18 of the United States Code.

As a below named inventor, I have reviewed and understand the contents of the application, including the claims, and am aware of the duty to disclose to the USPTO all information known to me to be material to patentability as defined in 37 C.F.R. § 1.56.

PATENT REEL: 051053 FRAME: 0795 Assignor (Inventor) 1:

Name: Jeffrey RULE

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Signature: 3454

Date: 8/5/2019

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Name: James ASHFIELD

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Date: 8/7/2019

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Date: 8/5/2019

Assignor (Inventor) 4:

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Signature: kevin Osborn

Date: 8/6/2019

PATENT REEL: 051053 FRAME: 0797

RECORDED: 11/19/2019