503677325 02/03/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3723961

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
PAUL MORETON	04/06/2012
THOMAS S. POOLE	04/05/2012

RECEIVING PARTY DATA

Name:	CAPITAL ONE FINANCIAL CORPORATION	
Street Address:	1680 CAPITAL ONE DRIVE	
City:	MCLEAN	
State/Country:	VIRGINIA	
Postal Code:	22102	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14966656

CORRESPONDENCE DATA

Fax Number: (202)778-2201

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: 2029551500

Email: patdcdocket@hunton.com

Correspondent Name: HUNTON & WILLIAMS LLP

Address Line 1: 2200 PENNSYLVANIA AVENUE

Address Line 4: WASHINGTON, D.C. 20037

ATTORNEY DOCKET NUMBER:	67519.001443	
NAME OF SUBMITTER:	DANIEL G. VIVARELLI, JR.	
SIGNATURE:	/Daniel G. Vivarelli, Jr./	
DATE SIGNED:	02/03/2016	

Total Attachments: 14

source=67519-1443-Assignment-document-1#page1.tif

source=67519-1443-Assignment-document-1#page2.tif

source=67519-1443-Assignment-document-1#page3.tif

source=67519-1443-Assignment-document-1#page4.tif

source=67519-1443-Assignment-document-1#page5.tif

PATENT 503677325 REEL: 037652 FRAME: 0314

source=67519-1443-Assignment-document-1#page6.tif	
source=67519-1443-Assignment-document-1#page7.tif	
source=67519-1443-Assignment-document-1#page8.tif	
source=67519-1443-Assignment-document-1#page9.tif	
source=67519-1443-Assignment-document-1#page10.tif	
source=67519-1443-Assignment-document-1#page11.tif	
source=67519-1443-Assignment-document-1#page12.tif	
source=67519-1443-Assignment-document-1#page13.tif	
source=67519-1443-Assignment-document-1#page14.tif	

Application Number : 14/966,656 Confirmation No.: 1771

Applicant : Thomas S. POOLE et al.

Filed : December 11, 2015

Title : ENHANCED NEAR FIELD COMMUNICATIONS

ATTACHMENT

TC/Art Unit : 3693

Examiner: : Gennadiy TSVEY

Docket No. : 67519.001443

Customer No. : 21967

MAIL STOP ASSIGNMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

LETTER

Sir,

This is submitted to update the Assignment of the above-identified application. This application is a Continuation of U.S. Application No. 14/790,126, which is a Continuation of U.S. Application No. 14/290,347, now U.S. Patent 9,105,025, which is a Continuation-in-Part of U.S. Application No. 13/538,468, now U.S. Patent 9,183,491, which is a Continuation of U.S. Application 13/441,505, now U.S. Patent 9,183,490, which claims priority to U.S. Provisional Applications 61/570.275 filed December 13, 2011 and 61/547,910 filed October 17, 2011. Attached is a copy of the original Assignment Recordation recorded in the parent application (U.S. Serial No. 14/790,126) and the current assignment information for this application. Please note that the original Assignment document for this parent application also assigns all continuations, reissues, reexaminations, renewals, substitutes and divisions.

Respectfully submitted,

HUNTON & WILLIAMS LLP

Dated: February 3, 2016 By: /Daniel G. Vivarelli, Jr./

Daniel G. Vivarelli, Jr. Registration No 51,137

Hunton & Williams LLP Intellectual Property Department 2200 Pennsylvania Avenue Washington, DC 20037 (202) 955-1500 (telephone) (202) 955-1804 (direct) (202) 778-2201 (facsimile) DGV/mia



UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

AUGUST 19, 2015

PTAS

HUNTON & WILLIAMS LLP 2200 PENNSYLVANIA AVENUE WASHINGTON, DC 20037 503441088

UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT RECORDATION BRANCH OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE ASSIGNMENT RECORDATION BRANCH AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT RECORDATION BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 08/18/2015 REEL/FRAME: 036349/0804

NUMBER OF PAGES: 13

BRIEF: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

DOCKET NUMBER: 67519.001400

ASSIGNOR:

MORETON, PAUL DOC DATE: 04/06/2012

ASSIGNOR:

POOLE, THOMAS DOC DATE: 04/05/2012

ASSIGNEE:

CAPITAL ONE FINANCIAL CORPORATION 1680 CAPITAL ONE DRIVE MCLEAN, VIRGINIA 22102

APPLICATION NUMBER: 14790126 FILING DATE: 07/02/2015

PATENT NUMBER: ISSUE DATE: TITLE: ENHANCED NEAR FIELD COMMUNICATIONS ATTACHMENT

ASSIGNMENT RECORDATION BRANCH PUBLIC RECORDS DIVISION

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3487712

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
PAUL MORETON	04/06/2012
THOMAS POOLE	04/05/2012

RECEIVING PARTY DATA

Name:	CAPITAL ONE FINANCIAL CORPORATION
Street Address:	1680 CAPITAL ONE DRIVE
City:	MCLEAN
State/Country:	VIRGINIA
Postal Code:	22102

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14790126

CORRESPONDENCE DATA

Fax Number: (202)778-2201

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: 2029551500

Email: patdcdocket@hunton.com

Correspondent Name: HUNTON & WILLIAMS LLP

Address Line 1: 2200 PENNSYLVANIA AVENUE

Address Line 4: WASHINGTON, D.C. 20037

ATTORNEY DOCKET NUMBER:	67519.001400	
NAME OF SUBMITTER:	DANIEL G. VIVARELLI, JR.	
SIGNATURE:	/Daniel G. Vivarelli, Jr./	
DATE SIGNED:	08/18/2015	

Total Attachments: 11

source=67519-1400-Assignment#page1.tif source=67519-1400-Assignment#page2.tif source=67519-1400-Assignment#page3.tif source=67519-1400-Assignment#page4.tif source=67519-1400-Assignment#page5.tif

Application Number : 14/790,126 Confirmation No.: 1060

Applicant : Thomas S. POOLE et al.

Filed : July 2, 2015

Title : ENHANCED NEAR FIELD COMMUNICATIONS

ATTACHMENT

TC/Art Unit : 3685

Examiner: : Unassigned
Docket No. : 67519.001400

Customer No. : **21967**

MAIL STOP ASSIGNMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

LETTER

Sir,

This is submitted to update the Assignment of the above-identified application. This application is a continuation of 14/290,347, now U.S. Patent No. 9,105,025, which is a continuation-in-part of 13/538,468, which is a continuation of 13/441,505. Attached is a copy of the original Assignment Recordation recorded in the parent application (U.S. Serial No. 14/290,347) and the current assignment information for this application. Please note that the original Assignment document for this parent application also assigns all continuations, reissues, reexaminations, renewals, substitutes and divisions.

Respectfully submitted,

HUNTON & WILLIAMS LLP

Dated: August 18, 2015 By: /Daniel G. Vivarelli, Jr./

Daniel G. Vivarelli, Jr., Reg. No 51,137

Hunton & Williams LLP Intellectual Property Department 2200 Pennsylvania Avenue Washington, DC 20037 (202) 955-1500 (telephone) (202) 955-1804 (direct) (202) 778-2201 (facsimile)

DGV/mia



UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

APRIL 14, 2015

PTAS

HUNTON & WILLIAMS LLP INTELLECTUAL PROPE 2200 PENNSYLVANIA AVENUE, N.W. WASHINGTON, DC 20037

503261212

UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT RECORDATION BRANCH OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE ASSIGNMENT RECORDATION BRANCH AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT RECORDATION BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 04/13/2015 REEL/FRAME: 035394/0561 NUMBER OF PAGES: 10

BRIEF: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

DOCKET NUMBER: 67519.001362

ASSIGNOR:

MORETON, PAUL DOC DATE: 04/06/2012

ASSIGNOR:

POOLE, THOMAS DOC DATE: 04/05/2012

ASSIGNEE:

CAPITAL ONE FINANCIAL CORPORATION 1680 CAPITAL ONE DRIVE MCLEAN, VIRGINIA 22102

APPLICATION NUMBER: 14290347 FILING DATE: 05/29/2014

PATENT NUMBER: ISSUE DATE: TITLE: ENHANCED NEAR FIELD COMMUNICATIONS ATTACHMENT

ASSIGNMENT RECORDATION BRANCH PUBLIC RECORDS DIVISION

04/13/2015 503261212

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT3307830

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
PAUL MORETON	04/06/2012
THOMAS POOLE	04/05/2012

RECEIVING PARTY DATA

Name:	CAPITAL ONE FINANCIAL CORPORATION
Street Address:	1680 CAPITAL ONE DRIVE
City:	MCLEAN
State/Country:	VIRGINIA
Postal Code:	22102

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14290347

CORRESPONDENCE DATA

Fax Number: (202)778-2201

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: 2029551500

Email: patdcdocket@hunton.com

Correspondent Name: **HUNTON & WILLIAMS LLP INTELLECTUAL PROPE**

Address Line 1: 2200 PENNSYLVANIA AVENUE, N.W.

Address Line 4: WASHINGTON, D.C. 20037

ATTORNEY DOCKET NUMBER:	67519.001362
NAME OF SUBMITTER:	DANIEL G. VIVARELLI, JR.
SIGNATURE:	/Daniel G. Vivarelli, Jr./
DATE SIGNED:	04/13/2015

Total Attachments: 8

source=67519-1362-Assignment#page1.tif

source=67519-1362-Assignment#page2.tif

source=67519-1362-Assignment#page3.tif

source=67519-1362-Assignment#page4.tif

source=67519-1362-Assignment#page5.tif

Application Number : 14/290,347 Confirmation No.: 4542

Applicant : Thomas S. POOLE et al.

Filed : May 29, 2014

Title : ENHANCED NEAR FIELD COMMUNICATIONS

ATTACHMENT

TC/Art Unit : 2648

Examiner: : Gennadiy TSVEY

Docket No. : 67519.001362

Customer No. : 21967

MAIL STOP ASSIGNMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

LETTER

Sir,

This is submitted to update the Assignment of the above-identified application. Attached is a copy of the original Assignment Recordation recorded in the parent application (U.S. Serial No. 13/538,468) and the current assignment information for this parent application. Please note that the original Assignment document for this parent application includes all continuations, reissues, reexaminations, extensions, substitutes and divisions.

Respectfully submitted,

HUNTON & WILLIAMS LLP

Dated: April 13, 2015 By: /Daniel G. Vivarelli, Jr./

Daniel G. Vivarelli, Jr. Registration No 51,137

Hunton & Williams LLP Intellectual Property Department 2200 Pennsylvania Avenue Washington, DC 20037 (202) 955-1500 (telephone) (202) 955-1804 (direct) (202) 778-2201 (facsimile) DGV/mia



061/CMF/Mildud 67579.00/277

United States Patent And Trademark Office

Under Secretary of Commerce for Intellectual Property and DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

JULY 3, 2012

PTAS

HUNTON & WILLIAMS LLP INTELLECTUAL PROPE

2200 PENNSYLVANIA AVENUE, N.W. WASHINGTON, DC 20037

UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT RECORDATION BRANCH OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE ASSIGNMENT RECORDATION BRANCH AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT RECORDATION BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 06/29/2012

REEL/FRAME: 028472/0368

NUMBER OF PAGES: 6

BRIEF: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS),

DOCKET NUMBER:

67519.001277

ASSIGNOR:

MORETON, PAUL

DOC DATE: 04/06/2012

ASSIGNOR:

POOLE, THOMAS

DOC DATE: 04/05/2012

ASSIGNEE:

CAPITAL ONE FINANCIAL CORPORATION

1680 CAPITAL ONE DRIVE MCLEAN, VIRGINIA 22102

APPLICATION NUMBER: 13538468

FILING DATE:

PATENT NUMBER:

ISSUE DATE:

TITLE: SYSTEM AND METHOD FOR PROVIDING CONTACTLESS PAYMENT WITH A NEAR

FIELD COMMUNICATIONS ATTACHMENT

ASSIGNMENT RECORDATION BRANCH PUBLIC RECORDS DIVISION

P.O. Box 1450, Alexandria, Virginia 22313-1450 - WWW.USPTO.GOV

PATENT

REEL: 037652 FRAME: 0323

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Paul MORETON	04/06/2012
Thomas POOLE	04/05/2012

RECEIVING PARTY DATA

Name:	CAPITAL ONE FINANCIAL CORPORATION
Street Address:	1680 Capital One Drive
City:	McLean
State/Country:	VIRGINIA
Postal Code:	22102

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13538468

CORRESPONDENCE DATA

Fax Number:

(202)778-2201

Phone:

202 955 1500

Email:

patdcdocket@hunton.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US

Mail.

Correspondent Name:

HUNTON & WILLIAMS LLP INTELLECTUAL PROPE

Address Line 1:

2200 Pennsylvania Avenue, N.W.

Address Line 4:

WASHINGTON, DISTRICT OF COLUMBIA 20037

ATTORNEY DOCKET NUMBER:	67519.001277
NAME OF SUBMITTER:	Christopher M. First

Total Attachments: 5

source=67519-1277-Assignment#page1.tif source=67519-1277-Assignment#page2.tif source=67519-1277-Assignment#page3.tif source=67519-1277-Assignment#page4.tif source=67519-1277-Assignment#page5.tif

> PATENT REEL: 037652 FRAME: 0324

40.00 13538468

Application Number

Unassigned

Confirmation No.:

Unassigned

Applicant

Paul MORETON et al.

Filed

June 29, 2012

Title

System and Method for Providing Contactless Payment With a Near

Field Communications Attachment

TC/Art Unit

Unassigned

Examiner:

Unassigned

Docket No.

67519.001277

Customer No.

21967

MAIL STOP ASSIGNMENT

Commissioner for Patents P.O. Box 1450

Alexandria, VA 22313-1450

<u>LETTER</u>

Sir.

This is submitted to update the Assignment of the above-identified application. Attached is a copy of the original Assignment Recordation recorded in the parent application (U.S. Serial No. 13/441,505) and the current assignment information for this parent application. Please note that the original Assignment document for this parent application includes all continuations. reissues, reexaminations, extensions, substitutes and divisions.

Respectfully submitted,

HUNTON & WILLIAMS LLP

Dated: 6/29/10

By:

Christopher M. First Registration No 68,042

Hunton & Williams LLP Intellectual Property Department 2200 Pennsylvania Avenue Washington, DC 20037 (202) 955-1500 (telephone) (202) 955-1804 (direct) (202) 778-2201 (facsimile) CMF/mia

PATENT

REEL: 037652 FRAME: 0325



United States Patent And Trademark Office

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DIRECTOR OF S. APRIL 9, 2012 APR - 9 2012 HUNTON & WILLIAMS LLP INTELLED 880716 PROPE 2200 PENNSYLVANIA AVENUE, N.W Hunton & Williams Lt P WASHINGTON, DC 20037 DOCKETED

UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT RECORDATION BRANCH OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE ASSIGNMENT RECORDATION BRANCH AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT RECORDATION BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 04/06/2012

REEL/FRAME: 028007/0255

NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

DOCKET NUMBER:

67519.001261

ASSIGNOR:

MORETON, PAUL

DOC DATE: 04/06/2012

ASSIGNOR:

POOLE, THOMAS

DOC DATE: 04/05/2012

ASSIGNEE:

CAPITAL ONE FINANCIAL CORPORATION 1680 CAPITAL ONE DRIVE MCLEAN, VIRGINIA 22102

APPLICATION NUMBER: 13441505

FILING DATE: ISSUE DATE:

PATENT NUMBER:

TITLE: SYSTEM AND METHOD FOR PROVIDING CONTACTLESS PAYMENT WITH A NEAR FIELD COMMUNICATIONS ATTACHMENT

ASSIGNMENT RECORDATION BRANCH PUBLIC RECORDS DIVISION

P.O. Box 1450, Alexandria, Virginia 22313-1450 - WWW.USPTO.GOV

Attorney Docket: 67519.001261

ASSIGNMENT

WHEREAS, we,

Paul MORETON, residing at 11916 Brookmeade Court, Glen Allen, VA 23059; and

Thomas POOLE, residing at 13799 Necklace Court, Chantily, VA 20151 have invented certain new and useful improvements in and to the subject matter of:

SYSTEM AND METHOD FOR PROVIDING CONTACTLESS PAYMENT WITH A NEAR FIELD COMMUNICATIONS ATTACHMENT

described in an application for United States Letters Patent being executed simultaneously herewith;

AND, WHEREAS, Capital One Financial Corporation, a corporation organized under the laws of the State of Delaware, having a place of business located at 1680 Capital One Drive, McLean, Virginia 22102 (hereinafter "ASSIGNEE"), is desirous of acquiring certain rights to the improvements and under the application;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration, receipt of which is hereby acknowledged, we do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, my entire right, title and interest in and throughout the United States of America (including its territories and dependencies) and all countries foreign thereto in and to said improvements, said United States application, any other United States applications, including provisional, divisional, renewal, substitute, continuation, reexamination and reissue applications, based in whole or in part on said United States application or in whole or in part on said improvements, any foreign applications, including international and regional applications, based in whole or in part on any of the aforesaid United States applications or in whole or in part on said improvements, and in and to any and all letters patent, including extensions thereof, of any country which have been or may be granted on any of the aforesaid applications or on said improvements or any parts thereof;

AND we hereby authorize and request my agents, Hunton & Williams LLP, whose address is 2200 Pennsylvania Ave. NW, Washington, DC 20037, to insert hereon any identification necessary or desirable for recordation of this document, including the filing date and application number of said application when known.

AND we hereby agree for myself and my heirs, executors and administrators to execute without further consideration any further documents and instruments which may be necessary, lawful and proper in the prosecution of said above-referenced application or in the preparation or prosecution of any continuing, substitute, divisional, renewal, reexamination or reissue application or in any amendments, extensions or interference proceedings, or other applications for patents of any region or country, that may be necessary to secure to ASSIGNEE its interest and title in and to said improvements or any parts thereof, and in and to said several patents or any of them;

Attorney Docket: 67519.001261

AND we hereby covenant for myself and my legal representatives, and agree with said ASSIGNEE, its successors and assigns, that we have granted no right or license to make, use, sell or offer to sell said improvements, to anyone except said ASSIGNEE, that prior to the execution of this deed, my right, title and interest in said improvements had not been otherwise encumbered, and that I have not and will not execute any instrument in conflict therewith;

AND we do hereby authorize and request the Director of the United States Patent and Trademark Office to issue any and all letters patent which may be granted upon said United States applications, or upon said improvements or any parts thereof when granted, to said ASSIGNEE.

IN WITNESS WHEREOF, we have hereunto set our hand and seal.

4/6/2012 Date	Pal m
County of Henrica)
State of Vinginia) ss: 489 66 2879
to the known and known to m	day of April, 2012, before me a Notary State aforesaid, personally appeared Paul Moreton, e to be the person of that name, who signed and sealed the wiedged the same to be of his free act and deed.
(SEAL)	Notary Public
	My Commission Expires <u>Aug 31, 2</u> 013



Attorney Docket: 67519.001261

4/5/2012 Date	Thomas POOLE
County of Fair Fau)
State of Vivginia) ss:)
Public in and for the County and S to me known and known to me	tate aforesaid, personally appeared Thamas Police, to be the person of that name, who signed and sealed the edged the same to be of his free act and deed.
(SEAL) LISA MICHELLE SMITH NOTARY PUBLIC REGISTRATION #296020 COMMONWEATH OF VIRGINIA MY COMMISSION EXPIRES	Notary Public #246020 My Commission Expires May 31,26/2