# 504693812 12/19/2017

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4740534

| SUBMISSION TYPE:   |   |   | NEW ASSIGNMENT                  |                |  |
|--|---|---|---------------------------------|----------------|--|
| IATURE OF CONVEYANCE: ASSIGNMENT   |   |   |                                 |                |  |
| CONVEYING PARTY  | DATA  |   |                                 |                |  |
|  |   | Name  |                                 | Execution Date |  |
| EOGHAN CONSIDINE   |   |   |                                 | 12/15/2017     |  |
| JOHN EGAN  |   |   |                                 | 12/15/2017     |  |
| ANTHONY LERNIHAN   |   |   |                                 | 12/15/2017     |  |
| RECEIVING PARTY D  | ΑΤΑ   |   |                                 |                |  |
| Name:  | FMR LLC   | 2   |                                 |                |  |
| Street Address:  | 245 SUN   | IMER STREET   |                                 |                |  |
| City:  | BOSTON  | N   |                                 |                |  |
| State/Country:   | MASSAC  | CHUSETTS  |                                 |                |  |
| Postal Code:   | 02210   |   |                                 |                |  |
| Property TypeApplication Number:1583   |   |   |                                 |                |  |
|  |   | Number  |                                 |                |  |
| Application Number:  |   | 5838691   |                                 |                |  |
|  | 1   |   |                                 |                |  |
| CORRESPONDENCE   | 1<br>DATA   | 5838691   |                                 |                |  |
| CORRESPONDENCE<br>Fax Number:<br><i>Correspondence will</i>  | DATA<br>(6<br>be sent to a  | 5838691<br>617)526-9899<br>t <b>he e-mail address first; if that</b>  |                                 |                |  |
| CORRESPONDENCE<br>Fax Number:<br><i>Correspondence will</i><br><i>using a fax number, i</i>  | DATA<br>((<br>be sent to a<br>f provided;   | 5838691<br>517)526-9899   |                                 |                |  |
| CORRESPONDENCE<br>Fax Number:<br><i>Correspondence will<br/>using a fax number, i</i><br>Phone:<br>Email:  | DATA<br>((<br>be sent to a<br>f provided;<br>((<br>s  | 5838691<br>517)526-9899<br>the e-mail address first; if that<br>if that is unsuccessful, it will<br>517) 526-9706<br>hynes@proskauer.com  |                                 |                |  |
| CORRESPONDENCE<br>Fax Number:<br><i>Correspondence will<br/>using a fax number, i</i><br>Phone:<br>Email:<br>Correspondent Name  | DATA<br>(6<br>be sent to a<br>f provided;<br>(6<br>s<br>: P   | 5838691<br>517)526-9899<br>the e-mail address first; if that<br>if that is unsuccessful, it will<br>517) 526-9706<br>hynes@proskauer.com<br>PROSKAUER ROSE LLP  |                                 |                |  |
| CORRESPONDENCE<br>Fax Number:<br><i>Correspondence will<br/>using a fax number, i</i><br>Phone:<br>Email:<br>Correspondent Name<br>Address Line 1:   | DATA<br>((<br>be sent to a<br>f provided;<br>((<br>s<br>: P<br>C                                    | 5838691<br>517)526-9899<br>the e-mail address first; if that<br>if that is unsuccessful, it will<br>517) 526-9706<br>hynes@proskauer.com<br>ROSKAUER ROSE LLP<br>DNE INTERNATIONAL PLACE  | be sent v                       |                |  |
| CORRESPONDENCE<br>Fax Number:<br><i>Correspondence will<br/>using a fax number, i</i><br>Phone:<br>Email:<br>Correspondent Name  | DATA<br>((<br>be sent to a<br>f provided;<br>((<br>s<br>: P<br>C                                    | 5838691<br>517)526-9899<br>the e-mail address first; if that<br>if that is unsuccessful, it will<br>517) 526-9706<br>hynes@proskauer.com<br>PROSKAUER ROSE LLP  | be sent v                       |                |  |
| CORRESPONDENCE<br>Fax Number:<br><i>Correspondence will<br/>using a fax number, i</i><br>Phone:<br>Email:<br>Correspondent Name<br>Address Line 1:<br>Address Line 4:  | DATA<br>(6<br>be sent to a<br>f provided;<br>(6<br>s<br>: P<br>C<br>B                               | 5838691<br>517)526-9899<br>the e-mail address first; if that<br>if that is unsuccessful, it will<br>517) 526-9706<br>hynes@proskauer.com<br>ROSKAUER ROSE LLP<br>DNE INTERNATIONAL PLACE  | be sent v                       |                |  |
| CORRESPONDENCE<br>Fax Number:<br><i>Correspondence will<br/>using a fax number, i</i><br>Phone:<br>Email:<br>Correspondent Name<br>Address Line 1:<br>Address Line 4:  | DATA<br>(6<br>be sent to a<br>f provided;<br>(6<br>: P<br>C<br>B<br>NUMBER:                         | 5838691<br>5838691<br>5617)526-9899<br>517) 526-9706<br>517) 526-9706<br>hynes@proskauer.com<br>ROSKAUER ROSE LLP<br>DNE INTERNATIONAL PLACE<br>OSTON, MASSACHUSETTS 02   | be sent v                       |                |  |
| CORRESPONDENCE<br>Fax Number:<br>Correspondence will<br>using a fax number, i<br>Phone:<br>Email:<br>Correspondent Name<br>Address Line 1:<br>Address Line 4:<br>ATTORNEY DOCKET M   | DATA<br>(6<br>be sent to a<br>f provided;<br>(6<br>: P<br>C<br>B<br>NUMBER:                         | 5838691<br>5617)526-9899<br>the e-mail address first; if that<br>if that is unsuccessful, it will<br>517) 526-9706<br>hynes@proskauer.com<br>PROSKAUER ROSE LLP<br>ONE INTERNATIONAL PLACE<br>ONE INTERNATIONAL PLACE<br>OSTON, MASSACHUSETTS 02<br>FID-194   | <b>be sent v</b><br>2110        |                |  |
| CORRESPONDENCE<br>Fax Number:<br><i>Correspondence will<br/>using a fax number, i</i><br>Phone:<br>Email:<br>Correspondent Name<br>Address Line 1:   | DATA<br>(6<br>be sent to a<br>f provided;<br>(6<br>: P<br>C<br>B<br>NUMBER:                         | 5838691<br>5838691<br>5617)526-9899<br>the e-mail address first; if that<br>if that is unsuccessful, it will<br>5617) 526-9706<br>hynes@proskauer.com<br>ROSKAUER ROSE LLP<br>DNE INTERNATIONAL PLACE<br>DNE INTERNATIONAL PLACE<br>SOSTON, MASSACHUSETTS 02<br>FID-194<br>XIN HU RASMUSSEN   | <b>be sent v</b><br>2110        |                |  |
| CORRESPONDENCE<br>Fax Number:<br><i>Correspondence will<br/>using a fax number, i</i><br>Phone:<br>Email:<br>Correspondent Name<br>Address Line 1:<br>Address Line 4:<br>ATTORNEY DOCKET N<br>NAME OF SUBMITTER<br>SIGNATURE:  | DATA<br>(6<br>be sent to a<br>f provided;<br>(6<br>: P<br>C<br>B<br>NUMBER:                         | 5838691<br>5838691<br>5617)526-9899<br>the e-mail address first; if that<br>if that is unsuccessful, it will<br>5617) 526-9706<br>hynes@proskauer.com<br>ROSKAUER ROSE LLP<br>DNE INTERNATIONAL PLACE<br>SOSTON, MASSACHUSETTS 02<br>FID-194<br>XIN HU RASMUSSEN<br>/Xin Hu Rasmussen, #63,2  | <b>be sent v</b><br>2110<br>64/ | via US Mail.   |  |
| CORRESPONDENCE<br>Fax Number:<br><i>Correspondence will<br/>using a fax number, i</i><br>Phone:<br>Email:<br>Correspondent Name<br>Address Line 1:<br>Address Line 4:<br>ATTORNEY DOCKET N<br>NAME OF SUBMITTER<br>SIGNATURE:  | DATA<br>(6<br>be sent to a<br>f provided;<br>(6<br>: P<br>C<br>B<br>NUMBER:                         | 5838691<br>5838691<br>5617)526-9899<br>the e-mail address first; if that<br>if that is unsuccessful, it will<br>5617) 526-9706<br>hynes@proskauer.com<br>PROSKAUER ROSE LLP<br>ONE INTERNATIONAL PLACE<br>OSTON, MASSACHUSETTS 02<br>FID-194<br>XIN HU RASMUSSEN<br>/Xin Hu Rasmussen, #63,2<br>12/19/2017  | <b>be sent v</b><br>2110<br>64/ | via US Mail.   |  |
| CORRESPONDENCE<br>Fax Number:<br>Correspondence will<br>using a fax number, in<br>Phone:<br>Email:<br>Correspondent Name<br>Address Line 1:<br>Address Line 1:<br>Address Line 4:<br>ATTORNEY DOCKET N<br>NAME OF SUBMITTER<br>SIGNATURE:<br>DATE SIGNED:<br>Total Attachments: 6<br>source=FID-194 Dec-As | DATA<br>(6<br>be sent to a<br>f provided;<br>(6<br>s<br>: P<br>C<br>B<br>NUMBER:<br>:<br>:          | 5838691<br>5838691<br>5617)526-9899<br>the e-mail address first; if that<br>if that is unsuccessful, it will<br>5617) 526-9706<br>hynes@proskauer.com<br>PROSKAUER ROSE LLP<br>ONE INTERNATIONAL PLACE<br>OSTON, MASSACHUSETTS 02<br>FID-194<br>XIN HU RASMUSSEN<br>/Xin Hu Rasmussen, #63,2<br>12/19/2017<br>This document serves as a             | <b>be sent v</b><br>2110<br>64/ | via US Mail.   |  |
| CORRESPONDENCE<br>Fax Number:<br>Correspondence will<br>using a fax number, in<br>Phone:<br>Email:<br>Correspondent Name<br>Address Line 1:<br>Address Line 4:<br>ATTORNEY DOCKET N<br>NAME OF SUBMITTER<br>SIGNATURE:<br>DATE SIGNED:   | DATA<br>((<br>be sent to a<br>f provided;<br>(f<br>: P<br>C<br>B<br>UMBER:<br>:<br>:<br>:<br>:<br>: | 5838691<br>5838691<br>5617)526-9899<br>the e-mail address first; if that<br>if that is unsuccessful, it will<br>5617) 526-9706<br>hynes@proskauer.com<br>ROSKAUER ROSE LLP<br>DNE INTERNATIONAL PLACE<br>OSTON, MASSACHUSETTS 02<br>FID-194<br>XIN HU RASMUSSEN<br>/Xin Hu Rasmussen, #63,2<br>12/19/2017<br>This document serves as a<br>hage1.tif | <b>be sent v</b><br>2110<br>64/ | via US Mail.   |  |

source=FID-194 Dec-Assignment#page4.tif source=FID-194 Dec-Assignment#page5.tif source=FID-194 Dec-Assignment#page6.tif

## PATENT

Attorney Docket No. FID-194

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| INVENTOR(S):     | Eoghan Considine et al. | CONFIRMATION NO.:        | 9715              |
|------------------|-------------------------|--------------------------|-------------------|
| APPLICATION NO.: | 15/838,691              | FILING DATE:             | December 12, 2017 |
| TITLE:           | Systems and Methods fo  | or Dynamic Application I | Management        |

#### DECLARATION PURSUANT TO 37 C.F.R. § 1.63 AND ASSIGNMENT

#### I. DECLARATION

As the below named inventor, I hereby make the following declarations with respect to the aboveidentified patent application:

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 aboveidentified application;

I hereby state that I have reviewed and understand the contents of the above-identified application, including the claims;

I acknowledge the duty to disclose to the Patent Office all information known by me to be material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information known by me which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part 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.

#### II. ASSIGNMENT

WHEREAS, I, Anthony Lernihan, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, <u>FMR LLC</u> (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the State of <u>Delaware</u>, and having a usual place of business at <u>245 Summer Street</u>, <u>Boston</u>, <u>MA 02210</u>, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents 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, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and Interest in and to said application, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said letters patent may be granted as fully and entirely as the same would have been held by me

## PATENT REEL: 044429 FRAME: 0304

DECLARATION PURSUANT TO 37 C.F.R. § 1.63 AND ASSEGNMENT U.S. Application No. 15/838,691 Page 2 of 2

had this assignment and sale not been made. I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for letters patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. I hereby acknowledge that this assignment, being of my entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all letters patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all letters patent to ASSIGNEE in its own name as assignee of my entire right, title and interest therein.

I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications.

I hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patern directed thereto may be involved.

I hereby authorize and request the Director of the United States Patent and Trademark Office to issue such letters patent as shall be granted upon said application, or applications based thereon, to said ASSIGNEE, its successors, assigns, or legal representatives.

#### III. SIGNATURE BLOCK

Inventor:

Eoghan Considine

PATENT REEL: 044429 FRAME: 0305

IN TESTIMONY WHEREOF. I have herein to set my hand-and affixed my seal on the date set forth below.

## NOTARIZATION

State/Commonwealth of County of

On this \_\_\_\_\_day of \_\_\_\_\_\_. 20\_\_\_\_before me, the undersigned notary public, personally appeared <u>Eoghan Considine</u>, proved to methrough satisfactory evidence of identification, which were \_\_\_\_\_\_\_, to be the person whose name is signed on the preceding or attached document in my presence.

\$ 55

|                       |     |          | <b>*</b>                                |      |
|-----------------------|-----|----------|---|------|
|                       |     | $\sim$   | Notary Public<br>My Commission Expires: | <br> |
| THE COMPANY AND AN AN |     | · ( )    | My Commission Expires:                  |      |
| <u>WIINESS</u>        |     |          |   |      |
| Witness Signate       | ue: |          |   |      |
| Witness Name:         |     |          | CAN.                                    |      |
| Witness Date:         |     | 1524 850 | Smr                                     |      |
|                       |     |          |   |      |
|                       |     |          |   |      |
|                       |     |          |   |      |
|                       |     |          |   |      |
|                       |     |          | <b>8</b>                                |      |
|                       |     |          | *<br>*                                  |      |
|                       |     |          | 8<br>8                                  |      |
|                       |     |          |   |      |
| 0.40400004            |     |          | 8                                       |      |

94912869v1

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTOR(S):Eoghan Considine et al.CONFIRMATION NO.:9715APPLICATION NO.:15/838,691FILING DATE:December 12, 2017TITLE:Systems and Methods for Dynamic Application Management

#### **DECLARATION PURSUANT TO 37 C.F.R. § 1.63 AND ASSIGNMENT**

#### I. DECLARATION

As the below named inventor, I hereby make the following declarations with respect to the aboveidentified patent application:

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 aboveidentified application;

I hereby state that I have reviewed and understand the contents of the above-identified application, including the claims;

I acknowledge the duty to disclose to the Patent Office all information known by me to be material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information known by me which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part 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.

#### **II. ASSIGNMENT**

WHEREAS, I, John Egan, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, <u>FMR LLC</u> (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the State of <u>Delaware</u>, and having a usual place of business at <u>245 Summer Street</u>, <u>Boston</u>, <u>MA 02210</u>, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents 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, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said letters patent may be granted as fully and entirely as the same would have been held by me

## PATENT REEL: 044429 FRAME: 0306

DECLARATION PURSUANT TO 37 C.F.R. § 1.63 AND ASSIGNMENT U.S. Application No. 15/838,691 Page 2 of 2

had this assignment and sale not been made. I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for letters patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. I hereby acknowledge that this assignment, being of my entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all letters patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all letters patent to ASSIGNEE in its own name as assignce of my entire right, title and interest therein.

I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications.

I hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved.

I hereby authorize and request the Director of the United States Patent and Trademark Office to issue such letters patent as shall be granted upon said application, or applications based thereon, to said ASSIGNEE, its successors, assigns, or legal representatives.

#### III. SIGNATURE BLOCK

*IN TESTIMONY WHEREOF*, I have hereunto set my hand-and affixed my seal on the date set forth below.

Inventor:

#### **NOTARIZATION**

State/Commonwealth of ) County of ) ss

On this \_\_\_\_\_ day of \_\_\_\_\_\_, 20\_\_\_before me, the undersigned notary public, personally appeared John Egan, proved to me through satisfactory evidence of identification, which were \_\_\_\_\_\_, to be the person whose name is signed on the preceding or

attached document in my presence.

WITNESS

Notary Public My Commission Expires:

Witness Signature: Witness Name: Witness Date:

94912923v1

#### PATENT Attorney Docket No. FID-194

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| INVENTOR(S):     | Eoghan Considine et al. | CONFIRMATION NO.:       | 9715              |
|------------------|-------------------------|-------------------------|-------------------|
| APPLICATION NO.: | 15/838,691              | FILING DATE:            | December 12, 2017 |
| TITLÉ:           | Systems and Methods fo  | r Dynamic Application I | Management        |

### DECLARATION PURSUANT TO 37 C.F.R. § 1.63 AND ASSIGNMENT

#### I. DECLARATION

As the below named inventor, I hereby make the following declarations with respect to the aboveidentified patent application:

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 aboveidentified application;

I hereby state that I have reviewed and understand the contents of the above-identified application, including the claims;

I acknowledge the duty to disclose to the Patent Office all information known by me to be material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information known by me which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part 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.

#### II. ASSIGNMENT

WHEREAS, I, Eoghan Considine, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, <u>FMR LLC</u> (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the State of <u>Delaware</u>, and having a usual place of business at <u>245 Summer Street</u>, <u>Boston</u>, <u>MA 02210</u>, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents 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, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application, together with my entire right, title and interest in and to said application, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said letters patent may be granted as fully and entirely as the same would have been held by me

## PATENT REEL: 044429 FRAME: 0308

DECLARATION PURSUANT TO 37 C.F.R. § 1.63 AND ASSIGNMENT U.S. Application No. 15/838,691 Page 2 of 2

had this assignment and sale not been made. I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for letters patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. I hereby acknowledge that this assignment, being of my entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all letters patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all letters patent to ASSIGNEE in its own name as assigned of my entire right, title and interest therein.

I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications.

I hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved.

I hereby authorize and request the Director of the United States Patent and Trademark Office to issue such letters patent as shall be granted upon said application, or applications based thereon, to said ASSIGNEE, its successors, assigns, or legal representatives.

#### III. SIGNATURE BLOCK

Inventor:

Anthony

Lernihan

PATENT REEL: 044429 FRAME: 0309

IN TESTIMONY WHEREOF, I have here into set my hand-and affixed my seal on the date set forth below.

#### NOTARIZATION

| State/Commonwealth of                |            |                    |
|--------------------------------------|------------|--------------------|
| State/Commonwealth of                |            |                    |
| Statute Constant Statute Constant Of | State/Cr   | in atteswanama     |
|                                      | Conserves, | nonneou nearess os |

On this <sup>165</sup> day of \_\_\_\_\_\_, 20 \_\_\_\_\_before me, the undersigned notary public, personally appeared <u>Anthony Lernihan</u>, proved to use through satisfactory evidence of identification, which were \_\_\_\_\_\_\_, to be the person whose name is signed on the preceding or attached document in my presence.

1 55

|   | ,   | Notary Public          | <br> |
|---|---|------------------------|------|
|   |   | My Commission Expires: |      |
| WITNESS   |   |                        |      |
| in the second |   | k.                     |      |
| Witness Signature:  | - the part of the |                        |      |
| Witness Name:   | JUDIM C   | LCKAN .                |      |
| Witness Date:   | Dec 15th  | part -                 |      |
|   |   |                        |      |
|   |   |                        |      |
|   |   |                        |      |
|   |   |                        |      |
|   |   |                        |      |
|   |   |                        |      |

94912951v1

RECORDED: 12/19/2017