503519775 10/13/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3566401

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SUZANNE P. HASSELL	02/19/2015
PAUL F. BERAUD	02/19/2015
ALEN CRUZ	02/19/2015
GANGADHAR GANGA	02/24/2013
BRIAN J. MASTROPIETRO	02/19/2015
TRAVIS C. HESTER	03/02/2015
DAVID A. HYDE	02/23/2015
JUSTIN W. TOENNIES	02/23/2015
STEPHEN R. MARTIN	02/20/2015
FRANK PIETRYKA	02/19/2015
NIRAJ K. SRIVASTAVA	03/02/2015

RECEIVING PARTY DATA

Name:	RAYTHEON COMPANY	
Street Address:	870 WINTER STREET	
City:	WALTHAM	
State/Country:	MASSACHUSETTS	
Postal Code:	02451-1449	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14437686

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: 1547.429US1

PATENT REEL: 036777 FRAME: 0414

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NAME OF CURNITIES	LANCIE A DOOMA
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DATE SIGNED:	10/13/2015
Total Attachments: 14	
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RECORDATION FORM COVER SHEET PATENTS ONLY

Atty Ref/Docket No.: 12-3084-WO-PCT (1547.429US1) Patent and Trademark Office To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof. 1. Name of conveying party(ies): 2. Name and address of receiving party(ies): Suzanne P. Hassell, Paul F. Beraud, Alen Cruz, Name: Raytheon Company Gangadhar Ganga, Brian J. Mastropietro, Travis C. Hester, David A. Hyde, Justin W. Toennies, Stephen R. Street Address: 870 Winter Street Martin, Frank Pietryka, Niraj K. Srivastava City: Waltham State: MA Zip: 02451-1449 Additional name(s) of conveying party(ies) attached? Country: <u>United States of America</u> Additional name(s) & address(es) attached? []Yes [X]No []Yes [X]No 3. Nature of conveyance: [X] Assignment [] Merger [] Security Agreement [] Change of Name [] Other Execution Date: February 19, 2015, February 19, 2015, February 19, 2015, February 24, 2013, February 19, 2015, March 2, 2015, February 23, 2015, February 20, 2015, February 19, 2015, March 2, 2015, February 20, 2015, February 19, 2015, March 2, 2015, February 20, 2015, February 19, 2015, March 2, 2015, February 20, 2015 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s) B. Patent No.(s) 14/437,686 Additional numbers attached? []Yes [X]No 5. Name and address of party to whom correspondence 6. Total number of applications and patents involved: 1 concerning document should be mailed: 7. Total fee (37 CFR 3.41):\$ <u>0.00</u> Name: Rigel J. Menard [[Enclosed Address: [Authorized to be charged to deposit account 19-Schwegman Lundberg & Woessner, P.A. 0743 P.O. Box 2938 Minneapolis, MN 55402--0938 8. Please charge any additional fees or credit any over payments to our Deposit Account No.: 19-0743 DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Rigel J. Menard/Reg. No. 66,520 10/06/2015 /Rigel J Menard/ Name of Person Signing

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks Mail Stop Assignment Recordation Services P.O. Box 1450 Alexandria, VA 22313-1450

> PATENT REEL: 036777 FRAME: 0416

Total number of pages including cover sheet: 14

ASSIGNMENT

WHEREAS, Suzanne P. Hassell, Paul F. Beraud III, Alen Cruz, Gangadhar Ganga, Brian J. Mastropietro, Travis C. Hester, David A. Hyde, Justin W. Toennies, Stephen R. Martin, Frank Pietryka and Niraj K. Srivastava (hereinafter the "Undersigned") have made one or more inventions and other subject matter (hereinafter collectively referred to as the "Invention") which are described in a patent application filed on October 23, 2013, which application was assigned PCT patent application serial number PCT/US2013/066378, and which is titled CYBER ANALYSIS MODELING EVALUATION FOR OPERATIONS (CAMEO) SIMULATION SYSTEM; which are described in a patent application filed on October 23, 2012, which application was assigned US application serial number 61/717,360, and which is titled SYSTEM AND METHOD FOR CYBER THREAT MODELING "WHAT-IF" VULNERABILITY AND PLATFORM CREATION AND AGENT ARCHITECTURE VISUALIZATION.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency, and adequacy of which are hereby acknowledged by the Undersigned, the Undersigned do hereby irrevocably and unconditionally:

CONVEY, ASSIGN, AND TRANSFER to Raytheon Company (the "Assignee"), a corporation of the State of Delaware, having a place of business at 870 Winter Street, Waltham, MA 02451-1449, the Undersigned's entire right, title, and interest for the United States and all foreign countries and jurisdictions in and to:

the Invention which is disclosed in the above-identified application or applications;

such application or applications, and all divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other applications for a patent or patents which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries and jurisdictions based in whole or in part on any of such Invention (including any application for a utility model or an innovation patent application);

all original and reissued patents which have been or shall be issued in the United States and all foreign countries and jurisdictions based in whole or in part on any of such Invention;

including the right to claim priority to the above-identified patent application or applications in relation to subject matter based in whole or in part on the above-identified patent application or applications and any of the foregoing including the right to file foreign applications under the provisions of any convention or treaty;

and including the right to all causes of action, remedies, and other enforcement rights related to the above-identified application or applications, including without limitation the right to sue for past, present, or future infringement, misappropriation, or violation of any and all rights related to the above-identified patent application or applications and any of the foregoing, including the right to obtain and collect damages for past, present, or future infringement;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such Invention to the Assignee;

Assignment Docket No: 1547.429WO1
Assignors: Suzanne P. Hassell et al. Client Ref. No. 12-3084-WO-PCT

Title: CYBER ANALYSIS MODELING EVALUATION FOR OPERATIONS (CAMEO) SIMULATION SYSTEM

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AUTHORIZE AND REQUEST that any attorney associated with U.S. Patent and Trademark Office (USPTO) Customer No. 85851 may (directly or through his/her designee) delete, insert, or alter any information related to the above-identified patent application or applications or any of the foregoing, after execution of this Assignment;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or shall be made to others by the Undersigned, and that the full right to convey the same as herein expressed is possessed by the Undersigned;

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the Undersigned shall (1) execute all provisional, non-provisional, divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other patent applications for the Invention; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers for the Invention; (3) communicate to the Assignee all facts known to the Undersigned relating to the Invention and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for the Invention; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such Invention in the Assignee, or for securing, maintaining and enforcing proper patent protection for the Invention;

COVENANT, that should any provision of this agreement be held unenforceable by an authority of competent jurisdiction, such a ruling shall not affect the validity and enforceability of the remaining provisions. To the extent that any such provision is found to be unenforceable, the Undersigned, when requested and without compensation shall act in good faith to substitute for such provision a new provision with content and purpose as close as possible to the provision deemed unenforceable.

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives, and successors of the Undersigned, and is to extend to the benefit of the successors, assigns, and nominees of the Assignee.

AGREED as of the date of my signature below:

Docket No: 1547.429WO1

Assignors: Suzanne P. Hassell et al.

Client Ref. No. 12-3084-WO-PCT

Title: CYBER ANALYSIS MODELING EVALUATION FOR OPERATIONS (CAMEO) SIMULATION SYSTEM Page 3 of 13 $\,$

Assignor:

(Signature):

Azzane P Hassell
Name: Suzanne P. Hassell

City/State: Clearwater, FL

Date:

Docket No. 1547.429WO1 Citem Ref. No. 32-3984-WO-PCT

Assignma: Suzanne P. Husseil et al.

Tale. CYBER ANALYSIS MODELING EVALUATION FOR OPERATIONS (CAMPO) SIMULATION SYSTEM

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Assignor:

(Signature):

Name: Paul F. Beraud III City/State: Parrish, FL

Docket No: 1547.429WO1 Client Rel. No. 12-3084-WO-PCT

Title CYBER ANALYSIS MODELING EVALUATION FOR OPERATIONS (CAMEO) SIMULATION SYSTEM

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Assignor:

(Signature):

Name: Alen Cruz

City/State: Tampa_fl

Date:

PATENT

REEL: 036777 FRAME: 0421

Docket No: 1547.429WO1

Assignors: Suzanne P. Hassell et al.

Client
Title: CYBER ANALYSIS MODELING EVALUATION FOR OPERATIONS (CAMEO) SIMULATION SYSTEM Client Ref. No. 12-3084-WO-PCT

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Assignor:

(Signature):

Name: Gangadhar Ganga

City/State: Clearwater, FL

pholode.

Assignment Docket No: 1547.429WO1
Assignors: Suzanne P. Hassell et al. Client Ref. No. 12-3084-WO-PCT
Title: CYBER ANALYSIS MODELING EVALUATION FOR OPERATIONS (CAMEO) SIMULATION SYSTEM
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Assignor:

(Signature):

Name: <u>Brian J. Mastropietro</u>

City/State: Springfield, VA

Date:

2/14/2015

Assignment Docket No. 1547.429W01
Assignors: Suzame P. Hassell et al. Cliem Ref. No. 12-3084-WO-PCT
Tide: CYBER ANALYSIS MODELING EVALUATION FOR OPERATIONS (CAMEO) SIMULATION SYSTEM
Page 8 of 13

Assignor:

(Signature):

Name: <u>Travis C. Hester</u> City/State: <u>Alexandria, VA</u>

Docker No: 1547.429WO1 Client Ref. No. 12-3084-WO-PCT

Assignors: Suzanne P. Hassell et al.

Client
Title: CYBER ANALYSIS MODELING EVALUATION FOR OPERATIONS (CAMEO) SIMULATION SYSTEM

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Assignor:

(Signature):

Name: David A. Hyde

City/State: <u>Alexandria, VA</u>

Assignment
Assignors: Suzanne P. Hassell et al. Client
Title: CYBER ANALYSIS MODELING EVALUATION FOR OPERATIONS (CAMEO) SIMULATION SYSTEM Docket No: 1547.429WO1 Client Ref. No. 12-3084-WO-PCT

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Assignor: (Signature):

Name: Justin W. Toennies

City/State: Largo, FL

Date:

Steve & Judi Martin

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Docket No: 1547,429WO1 Client Ref. No. 12-3084-WO-PCT

Assignment
Assignors: Suzanne P. Hassell et al.
Client
Title: CYBER ANALYSIS MODELING EVALUATION FOR OPERATIONS (CAMEO) SIMULATION SYSTEM
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Assignor:

(Signature):

Name: Stephen R. Martin

City/State: Largo, FL

Date:

20 FEB 2015

PATENT

REEL: 036777 FRAME: 0427

Docket No: 1547,429WO1 Client Ref. No. 12-3084-WO-PCT

Assignment
Assignors: Suzame P. Hassell et al.
Client
Title: CYBER ANALYSIS MODELING EVALUATION FOR OPERATIONS (CAMBO) SIMULATION SYSTEM

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Assignor:

(Signature):

Name: Frank Pietryka

City/State: Ridge, MD

Date:

2/19/15

Docket No: 1547,429WO1 Client Ref. No. 12-3084-WO-PCT

Assignors: Suzanne P. Hassell et al.

Client
Title: CYBER ANALYSIS MODELING EVALUATION FOR OPERATIONS (CAMEO) SIMULATION SYSTEM

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Assignor:

(Signature):

Name: Niráj K. Srivastava

Date: