504804677 03/05/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4851409

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KARL ACKERMAN	06/30/2017
MARK DAVID HARRIS	06/21/2017
SIMON NEIL REED	06/21/2017
ANDREW J. THOMAS	09/14/2017
KENNETH D. RAY	03/03/2018

RECEIVING PARTY DATA

Name:	SOPHOS LIMITED	
Street Address:	THE PENTAGON, ABINGDON SCIENCE PARK	
City:	ABINGDON	
State/Country:	UNITED KINGDOM	
Postal Code:	OX14 3YP	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15479476

CORRESPONDENCE DATA

Fax Number: (781)644-6137

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.

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ATTORNEY DOCKET NUMBER:	SPHS-0109-P01	
NAME OF SUBMITTER:	ROBERT A. MAZZARESE	
SIGNATURE:	/Robert Mazzarese/	
DATE SIGNED:	03/05/2018	

Total Attachments: 20

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Serial No.: 15/479,476 Filing Date: April 5, 2017 Page 1 of 4 Combined Declaration and Assignment

United States Patent Application COMBINED DECLARATION AND ASSIGNMENT

Title of Invention: <u>DETECTING TRIGGERING EVENTS FOR DISTRIBUTED DENIAL OF SERVICE</u> <u>ATTACKS</u>

DECLARATION

As a below named and undersigned inventor, I hereby declare that:

- (a) This declaration is directed to United States application or PCT international application number 15/479,476 filed on April 5, 2017.
 - (b) The above-identified application was made or authorized to be made by me.
- (c) I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application, including the claims, and I acknowledge the duty to disclose all information which is material to the patentability of this application as defined in 37 C.F.R. § 1.56 (attached hereto).

Serial No.: 15/479,476 Filing Date: April 5, 2017 Page 2 of 4 Combined Declaration and Assignment

ASSIGNMENT

WHEREAS, the undersigned inventor ("Inventor") has developed certain inventions ("Inventions") described in the above U.S. patent application, and has full right to convey his or her entire interest, both legal and equitable, in and to said Inventions free from all prior assignments, agreements, licenses, mortgages, security interests, or other encumbrances whatsoever; and

WHEREAS, Sophos Limited ("ASSIGNEE"), an entity organized and existing under the laws of the United Kingdom, and having a place of business at The Pentagon, Abingdon Science Park, Abingdon, OX14 3YP, United Kingdom, is desirous of acquiring the entire right, title, and interest in and to the Inventions and any and all patents to be obtained therefore;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the Inventor, the Inventor hereby sells, assigns and transfers unto the ASSIGNEE, its successors and assigns, his or her entire right, title and interest in and to the Inventions as described in the above application and all applications resulting therefrom, including any and all conversions, divisions, continuations, continuations-in-part, substitute applications, and reissues or extensions thereof; and all resulting patents in any jurisdiction worldwide, along with all rights of priority and rights to sue for past infringement;

AND the Inventor hereby authorizes and requests the issuing authority to issue any and all patents issuing from any of the forgoing to the ASSIGNEE or its successors and assigns;

AND the Inventor agrees that ASSIGNEE's counsel, Strategic Patents, P.C. having Patent Office Customer Number 138064, shall hereinafter act on behalf of the ASSIGNEE with respect to the Inventions;

AND the Inventor further agrees, without any further payment or compensation by the ASSIGNEE or its successors and assigns, to communicate to the ASSIGNEE, its representatives or agents or its successors and assigns, any facts relating to the Inventions including evidence for interference purposes or for other legal proceedings whenever requested; to testify in any interference or other legal proceedings, whenever requested; to execute and deliver, on request, all lawful papers required to make any of the foregoing provisions effective; and to generally do everything possible to aid the ASSIGNEE, its successors or assigns and nominees to secure, obtain and enforce proper patent protection for the Inventions in this or any foreign country.

The Inventor hereby authorizes the attorneys and agents associated with Patent Office Customer Number 138064 to insert hereon any further information necessary or desirable for recordation of this document.

Serial No. 15/479,476 Filing Date: April 5, 2017 Page 3 of 4 Combined Declaration and Assignment

Serial No.: 15/479,476 Filing Date: April 5, 2017 Page 4 of 4 Combined Declaration and Assignment

§ 1.56 Duty to disclose information material to patentability.

- (a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:
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 - It establishes, by itself or in combination with other information, a prima facte case of unpatentability of a claim; or
 - (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

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- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
 - (1) Each inventor named in the application;
 - (2) Each attorney or agent who prepares or prosecutes the application; and
 - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, the applicant, an assignce, or anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.
- (e) In any continuation-in-part application, the duty under this section includes the duty to disclose to the Office all information known to the person to be material to patentability, as defined in paragraph (b) of this section, 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.

Serial No.: 15/479,476 Filing Date: April 5, 2017

United States Patent Application COMBINED DECLARATION AND ASSIGNMENT

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Serial No.: 15/479,476 Filing Date: April 5, 2017 Page 2 of 4 Combined Declaration and Assignment

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NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the Inventor, the Inventor hereby sells, assigns and transfers unto the ASSIGNEE, its successors and assigns, his or her entire right, title and interest in and to the Inventions as described in the above application and all applications resulting therefrom, including any and all conversions, divisions, continuations, continuations-in-part, substitute applications, and reissues or extensions thereof; and all resulting patents in any jurisdiction worldwide; along with all rights of priority and rights to sue for past infringement:

AND the Inventor hereby authorizes and requests the issuing authority to issue any and all patents issuing from any of the forgoing to the ASSIGNEE or its successors and assigns;

AND the Inventor agrees that ASSIGNEE's counsel, Strategic Patents, P.C. having Patent Office Customer Number 138064, shall hereinafter act on behalf of the ASSIGNEE with respect to the Inventions;

AND the Inventor further agrees, without any further payment or compensation by the ASSIGNEE or its successors and assigns, to communicate to the ASSIGNEE, its representatives or agents or its successors and assigns, any facts relating to the Inventions including evidence for interference purposes or for other legal proceedings whenever requested; to testify in any interference or other legal proceedings, whenever requested; to execute and deliver, on request, all lawful papers required to make any of the foregoing provisions effective; and to generally do everything possible to aid the ASSIGNEE, its successors or assigns and nominees to secure, obtain and enforce proper patent protection for the Inventions in this or any foreign country.

The Inventor hereby authorizes the attorneys and agents associated with Patent Office Customer Number 138064 to insert hereon any further information necessary or desirable for recordation of this document.

Attorney Docket No.: SPHS-0109-P01 Page 3 of 4
Serial No.: 15/479,476 Combined Declaration and Assignment

Filing Date: April 5, 2017

I accept and agree to the terms of the ASSIGNMENT above.

I hereby acknowledge that any willful false statement made in the DECLARATION above is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Full Legal Name of inventor: Mark David Harris Residence: Oxon, United Kingdom

Signature: Date: Date: Date:

Serial No.: 15/479,476 Filing Date: April 5, 2017 Page 4 of 4 Combined Declaration and Assignment

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Serial No.: 15/479,476 Filing Date: April 5, 2017 Page 1 of 4 Combined Declaration and Assignment

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Serial No.: 15/479,476 Filing Date: April 5, 2017 Page 3 of 4 Combined Declaration and Assignment

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Full Legal Name of inventor: Simon Neil Reed Residence: Wokingham, United Kingdom

Signature:

Simon Neil Reed

Date: 21 June 2017.

Serial No.: 15/479,476 Filing Date: April 5, 2017 Page 4 of 4 Combined Declaration and Assignment

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Serial No.: 15/479,476 Filing Date: April 5, 2017 Page 1 of 4 Combined Declaration and Assignment

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Full Legal Name of inventor: Andrew J. Thomas Residence: Oxfordshire, United Kingdom

Signature: Date: 14 9 17

Andrew J. Thomas

Attorney Docket No.: SPHS-0109-P01

Serial No.: 15/479,476

Filing Date: April 5, 2017

PATENT REEL: 045109 FRAME: 0269

Page 3 of 4

Combined Declaration and Assignment

Serial No.: 15/479,476 Filing Date: April 5, 2017 Page 4 of 4 Combined Declaration and Assignment

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 - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, the applicant, an assignee, or anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.
- (e) In any continuation-in-part application, the duty under this section includes the duty to disclose to the Office all information known to the person to be material to patentability, as defined in paragraph (b) of this section, 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.

United States Patent Application COMBINED DECLARATION AND ASSIGNMENT

Title of Invention: <u>DETECTING TRIGGERING EVENTS FOR DISTRIBUTED DENIAL OF SERVICE</u> ATTACKS

DECLARATION

As a below named and undersigned inventor, I hereby declare that:

- (a) This declaration is directed to United States application or PCT international application number 15/479,476 filed on April 5, 2017.
 - (b) The above-identified application was made or authorized to be made by me.
- (c) I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application, including the claims, and I acknowledge the duty to disclose all information which is material to the patentability of this application as defined in 37 C.F.R. § 1.56 (attached hereto).

Page 2 of 4
Combined Declaration and Assignment

Attorney Docket No.: SPHS-0109-P01

Serial No.: 15/479,476 Filing Date: April 5, 2017

ASSIGNMENT

WHEREAS, the undersigned inventor ("Inventor") has developed certain inventions ("Inventions") described in the above U.S. patent application, and has full right to convey his or her entire interest, both legal and equitable, in and to said Inventions free from all prior assignments, agreements, licenses, mortgages, security interests, or other encumbrances whatsoever; and

WHEREAS, Sophos Limited ("ASSIGNEE"), an entity organized and existing under the laws of the United Kingdom, and having a place of business at The Pentagon, Abingdon Science Park, Abingdon, OX14 3YP, United Kingdom, is desirous of acquiring the entire right, title, and interest in and to the Inventions and any and all patents to be obtained therefore;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the Inventor, the Inventor hereby sells, assigns and transfers unto the ASSIGNEE, its successors and assigns, his or her entire right, title and interest in and to the Inventions as described in the above application and all applications resulting therefrom, including any and all conversions, divisions, continuations, continuations-in-part, substitute applications, and reissues or extensions thereof; and all resulting patents in any jurisdiction worldwide; along with all rights of priority and rights to sue for past infringement;

AND the Inventor hereby authorizes and requests the issuing authority to issue any and all patents issuing from any of the forgoing to the ASSIGNEE or its successors and assigns;

AND the Inventor agrees that ASSIGNEE's counsel, Strategic Patents, P.C. having Patent Office Customer Number 138064, shall hereinafter act on behalf of the ASSIGNEE with respect to the Inventions;

AND the Inventor further agrees, without any further payment or compensation by the ASSIGNEE or its successors and assigns, to communicate to the ASSIGNEE, its representatives or agents or its successors and assigns, any facts relating to the Inventions including evidence for interference purposes or for other legal proceedings whenever requested; to testify in any interference or other legal proceedings, whenever requested; to execute and deliver, on request, all lawful papers required to make any of the foregoing provisions effective; and to generally do everything possible to aid the ASSIGNEE, its successors or assigns and nominees to secure, obtain and enforce proper patent protection for the Inventions in this or any foreign country.

The Inventor hereby authorizes the attorneys and agents associated with Patent Office Customer Number 138064 to insert hereon any further information necessary or desirable for recordation of this document.

Serial No.: 15/479,476

Filing Date: April 5, 2017

Page 3 of 4 Combined Declaration and Assignment

I accept and agree to the terms of the ASSIGNMENT above.

I hereby acknowledge that any willful false statement made in the DECLARATION above is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Full Legal Name of inventor: Kenneth D. Ray

Residence: Seattle, WA

Signature:

Kenneth D. Ray

Date:

3-3-18

PATENT

REEL: 045109 FRAME: 0273

Page 4 of 4 Combined Declaration and Assignment

Attorney Docket No.: SPHS-0109-P01

Serial No.: 15/479,476 Filing Date: April 5, 2017

§ 1.56 Duty to disclose information material to patentability.

- (a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:
 - (1) Prior art cited in search reports of a foreign patent office in a counterpart application, and
 - (2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and
 - (1) It establishes, by itself or in combination with other information, a *prima facie* case of unpatentability of a claim; or
 - (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
 - (1) Each inventor named in the application;
 - (2) Each attorney or agent who prepares or prosecutes the application; and
 - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, the applicant, an assignee, or anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.
- (e) In any continuation-in-part application, the duty under this section includes the duty to disclose to the Office all information known to the person to be material to patentability, as defined in paragraph (b) of this section, 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.

PATENT REEL: 045109 FRAME: 0274

RECORDED: 03/05/2018