

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5141830

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
CONVEYING PARTY DATA	
Name	Execution Date
SOLACE CORPORATION	09/14/2018
RECEIVING PARTY DATA	
Name:	PNC BANK, NATIONAL ASSOCIATION
Street Address:	500 FIRST AVENUE
City:	PITTSBURGH
State/Country:	PENNSYLVANIA
Postal Code:	15219
PROPERTY NUMBERS Total: 25	
Property Type	Number
Patent Number:	7801857
Application Number:	12698257
Patent Number:	7706255
Patent Number:	7889738
Patent Number:	7925971
Patent Number:	8144714
Patent Number:	7486698
Patent Number:	7512125
Patent Number:	7526493
Patent Number:	7627570
Patent Number:	7716525
Patent Number:	7747694
Patent Number:	7844733
Patent Number:	7859882
Patent Number:	7895158
Patent Number:	7895299
Patent Number:	7924730
Patent Number:	8107256
Patent Number:	8467389
Patent Number:	8477627

PATENT

Property Type	Number
Patent Number:	9319267
Patent Number:	9319362
Patent Number:	9426115
Patent Number:	9509529
Patent Number:	9515943

CORRESPONDENCE DATA

Fax Number: (215)832-5619

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: 2155695619

Email: pecsenye@blankrome.com

Correspondent Name: TIMOTHY D. PECSENYE

Address Line 1: ONE LOGAN SQUARE

Address Line 2: 8TH FLOOR

Address Line 4: PHILADELPHIA, PENNSYLVANIA 19103

ATTORNEY DOCKET NUMBER: 074658-18078

NAME OF SUBMITTER: TIMOTHY D. PECSENYE

SIGNATURE: /Timothy D. Pecsénye/

DATE SIGNED: 09/14/2018

Total Attachments: 14

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT (as amended, restated, supplemented or replaced from time to time, this “**Agreement**”) is dated with effect as of the 14 day of September, 2018 and executed and delivered by **SOLACE CORPORATION**, a corporation incorporated under the laws of the Province of Ontario (the “**Debtor**”), to and in favour of **PNC BANK, NATIONAL ASSOCIATION** as agent for the Lenders (as defined in the Credit and Security Agreement, as hereinafter defined), together with its successors and assigns in such capacity, “**Agent**”.

RECITALS

- A.** The Debtor is or is about to become indebted to the Agent and the Lenders pursuant to a certain revolving credit, term loan, security agreement and guaranty, *inter alios*, the Debtor, the Agent and the Lenders dated with effect as of the date hereof (as amended, supplemented, replaced or restated from time to time, the “**Credit and Security Agreement**”);
- B.** To secure the payment and performance of all of the debts, liabilities and obligations of the Debtor to the Agent and the Lenders, the Debtor has entered into, *inter alia*, the Credit and Security Agreement; and
- C.** As a condition to extending credit to or for the account of the Debtor, the Agent and the Lenders have required the execution and delivery of this Agreement by the Debtor.

NOW THEREFORE in consideration of the extension of credit by the Agent and the Lenders to the Debtor and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the Debtor, the Debtor hereby covenants and agrees to and in favour of the Agent as follows:

1. Definitions

Except as otherwise expressly provided herein, capitalized terms used in this Agreement (including in the Recitals hereof) but not defined herein shall have the meanings assigned to such terms in the Credit and Security Agreement. In addition, in this Agreement, unless the context expressly or by necessary implication otherwise required, the following terms shall have the meanings set forth below:

- (a) “**Copyrights**” means all of the Debtor’s right, title and interest in and to copyrights, income, royalties, damages and payments now and hereafter due and/or payable under and with respect to, including, without limitation, damages and payments for past or future infringements thereof, with respect to each, and including without limitation the right to sue for past infringement and damages therefor, and licenses thereunder, all as presently existing or hereafter arising or acquired, including without limitation the copyrights listed on **Exhibit A**.
- (b) “**Patents**” means all of the Debtor’s right, title and interest in and to patents or applications for patents, industrial designs or applications for industrial designs, fees or royalties with respect to each, and including without limitation the right to

sue for past infringement and damages therefor, and licenses thereunder, all as presently existing or hereafter arising or acquired, including without limitation the patents listed on **Exhibit B**.

- (c) **“Security Interest”** shall have the meaning ascribed thereto in Section 2.
 - (d) **“Trademark”** and **“Trademarks”** means all of the Debtor’s right, title and interest in and to: (i) trademarks, service marks, collective membership marks, registrations and applications for registration for each, and the respective goodwill associated with each, (ii) licenses, fees or royalties with respect to each, (iii) the right to sue for past, present and future infringement, dilution and damages therefor, and (iv) licenses thereunder, all as presently existing or hereafter arising or acquired, including, without limitation, the marks listed on **Exhibit C**.
2. **Security Interest.** The Debtor hereby irrevocably pledges and assigns to, and grants the Agent a security interest (the **“Security Interest”**) with power of sale to the extent permitted by law, in the Copyrights, in the Patents and in the Trademarks to secure payment of its Obligations. As set forth in the Credit and Security Agreement, the Security Interest is coupled with a security interest in substantially all of the personal property of the Debtor. This Agreement grants only the Security Interest herein described, is not intended to and does not affect any present transfer of title of any trademark registration or application and makes no assignment and grants no right to assign or perform any other action with respect to any intent to use the trademark application, unless such action is permitted under applicable law. The Debtor hereby authorizes and requests that the Canadian Intellectual Property Office, the United States Patent and Trademark Office or any similar office or agency of any foreign country, and any other applicable governmental body record this Agreement.
3. **Attachment.** The Debtor and the Agent and the Lenders intend that the Security Interest created hereby attaches to the Copyrights, the Patents and to the Trademarks upon the execution of this Agreement and that the Security Interest will attach to the Copyrights, the Patents and to the Trademarks acquired after the date of execution of this Agreement at the time that the Debtor acquires rights in same. The Debtor and the Agent agree that value has been given. The Debtor represents and warrants that it has rights in the Copyrights, the Patents and in the Trademarks.
4. **Representations, Warranties and Agreements.** The Debtor represents, warrants and agrees as follows:
- (a) **Copyrights. Exhibit A** accurately lists all Copyrights owned or controlled by the Debtor as of the date hereof, or to which the Debtor has a right as of the date hereof to have assigned to it, and accurately reflects the existence and status of the copyrights as of the date hereof.
 - (b) **Patents. Exhibit B** accurately lists all Patents owned or controlled by the Debtor as of the date hereof, or to which the Debtor has a right as of the date hereof to have assigned to it, and accurately reflects the existence and status of applications and letters patent pertaining to the Patents as of the date hereof.

- (c) **Trademarks. Exhibit C** accurately lists all Trademarks owned or controlled by the Debtor as of the date hereof and accurately reflects the existence and status of Trademarks and all applications and registrations pertaining thereto as of the date hereof; provided, however, that **Exhibit C** need not list common law marks (i.e., Trademarks for which there are no applications or registrations) which are not material to a Debtor's or any Affiliate's business(es)
- 5. **The Debtor's Use of the Copyrights, Patents and Trademarks.** The Debtor shall be permitted to control and manage the Copyrights, Patents and Trademarks, including the right to exclude others from making, using or selling items covered by the Copyrights, Patents and Trademarks and any licenses thereunder, in the same manner and with the same effect as if this Agreement had not been entered into, so long as no Event of Default occurs, which is continuing and has not been waived in writing by Agent.
- 6. **Events of Default.** Any Event of Default (as defined in the Credit and Security Agreement) which is continuing and has not been waived in writing by Agent, shall constitute an event of default under this Agreement (herein called "**Event of Default**").
- 7. **Remedies.** Upon the occurrence of an Event of Default which is continuing and has not been waived in writing by Agent, and at any time thereafter, the Agent may, at its option, take any or all of the following actions:
 - (a) exercise any or all remedies available under the Credit and Security Agreement and any Other Documents, and all rights and remedies of a secured party provided at applicable law;
 - (b) sell, assign, transfer, pledge, encumber or otherwise dispose of the Copyrights, Patents and Trademarks; and/or
 - (c) enforce the Copyrights, Patents and Trademarks and any licenses thereunder, and if the Agent shall commence any suit for such enforcement, the Debtor shall, at the request of the Agent do any and all lawful acts and execute any and all proper documents required in aid of such enforcement.
- 8. **Miscellaneous.** This Agreement can be waived, modified, amended, terminated or discharged, and the Security Interest can be released, only explicitly in a writing signed by the Agent. A waiver signed by the Agent shall be effective only in the specific instance and for the specific purpose given. Mere delay or failure to act shall not preclude the exercise or enforcement of any of the Agent's rights or remedies. All rights and remedies of the Agent shall be cumulative and may be exercised singularly or concurrently, at the Agent's option, and the exercise or enforcement of any one such right or remedy shall neither be a condition to nor bar the exercise or enforcement of any other. All notices to be given to the Debtor under this Agreement shall be given in the manner and with the effect provided in the Credit and Security Agreement. The Agent shall not be obligated to preserve any rights the Debtor may have against prior parties, to realize on the Copyrights, Patents and Trademarks at all or in any particular manner or order, or to apply any cash proceeds of Copyrights, Patents and Trademarks in any particular order of application. This Agreement shall be binding upon and inure to the benefit of the Debtor and the Agent and its Participants, successors and assigns and shall take effect when signed by the Debtor and

delivered to the Agent, and the Debtor waives notice of the Agent's acceptance hereof. The Agent may execute this Agreement if appropriate for the purpose of filing, but the failure of the Agent to execute this Agreement shall not affect or impair the validity or effectiveness of this Agreement. A carbon, photographic or other reproduction of this Agreement signed by the Debtor or of any financing statement authorized by the Debtor shall have the same force and effect as the original for all purposes of a financing statement. If any provision or application of this Agreement is held unlawful or unenforceable in any respect, such illegality or unenforceability shall not affect other provisions or applications which can be given effect and this Agreement shall be construed as if the unlawful or unenforceable provision or application had never been contained herein or prescribed hereby. All representations and warranties contained in this Agreement shall survive the execution, delivery and performance of this Agreement and the creation of the Obligations.

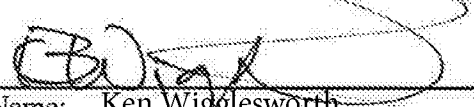
9. **Binding Effect; Benefits.** This Agreement shall be binding upon the Debtor and its successors and assigns, and shall inure to the benefit of the Agent (for itself and the benefit of the Lenders) and its successors and assigns.
10. **Governing Law.** This Agreement is to be exclusively construed in accordance with and governed by the internal laws of the Province of Ontario and the federal laws of Canada applicable therein without giving effect to any choice of law rule or principle that would cause the application of the laws of any jurisdiction other than the internal laws of the Province of Ontario and the federal laws of Canada applicable therein to the rights and duties of the Debtor and the Agent.
11. **Counterparts.** This Agreement may be executed in any number of counterparts, all of which shall constitute one and the same instrument, and any party hereto may execute this Agreement by signing and delivering one or more counterparts. Delivery of an executed counterpart of signature page to this Agreement by facsimile transmission or other electronic transmission shall be effective as delivery of a manually executed counterpart. Any party so executing this Agreement by facsimile transmission or other electronic transmission shall promptly deliver a manually executed counterpart, provided that any failure to do so shall not affect the validity of the counterpart executed by facsimile transmission or other electronic transmission.
12. **Paramountcy.** In the event of any conflict or inconsistency with the provisions hereof and the provisions of the Credit and Security Agreement, the provisions of the Credit and Security Agreement shall prevail and govern but only to the extent of such conflict or inconsistency.

[Signature Pages Follows]

IN WITNESS WHEREOF, the Debtor has executed and delivered this Patent and Trademark Security Agreement to and in favour of the Agent under seal with effect as of the date first written above.

SOLACE CORPORATION

By:


Name: Ken Wigglesworth
Title: Chief Financial Officer

Signature Page to Intellectual Property Security Agreement

PATENT
REEL: 046877 FRAME: 0951

**EXHIBIT A
COPYRIGHTS**

CANADIAN COPYRIGHTS

None.

US COPYRIGHTS

None.

**EXHIBIT B
PATENTS**

CANADIAN PATENTS

None.

UNITED STATES PATENTS

Patent Name	Owner	Country	Patent No. (Application No.)	Reg. Date (Application Date)
IMPLICIT ROUTING IN CONTENT BASED NETWORKS	Solace Corporation	U.S.	7,801,857	09/21/2010
GEOSPATIALLY AWARE MESSAGE SYSTEM AND METHOD	Solace Systems, Inc.	U.S.	(12,698,257)	(02/02/2010)
COMMUNICATIONS APPARATUS WITH REDUNDANT SWITCHING OR BACKPRESSURE MECHANISM	Solace Corporation	U.S.	7,706,255	04/27/2010
SHARED APPLICATION INTER-WORKING WITH VIRTUAL PRIVATE NETWORKS	Solace Corporation	U.S.	7,889,738	02/15/2011
TRANSFORMATION MODULE FOR TRANSFORMING DOCUMENTS FROM ONE FORMAT TO OTHER FORMATS WITH PIPELINED PROCESSOR HAVING DEDICATED	Solace Corporation	U.S.	7,925,971	04/12/2011

Patent Name	Owner	Country	Patent No. (Application No.)	Reg. Date (Application Date)
HARDWARE RESOURCES				
ASSURED DELIVERY MESSAGE SYSTEM AND METHOD	Solace Corporation	U.S.	8,144,714	03/27/2012
MULTIPLEXING OF CONTROL AND DATA OVER AN HTTP CONNECTION	Solace Corporation	U.S.	7,486,698	02/03/2009
CODING OF ROUTING PROTOCOL MESSAGES IN MARKUP LANGUAGE	Solace Corporation	U.S.	7,512,125	03/31/2009
META-TAGGING IN CONTENT ROUTED NETWORKS	Solace Corporation	U.S.	7,526,493	04/28/2009
HIGHLY SCALABLE SUBSCRIPTION MATCHING FOR A CONTENT ROUTING NETWORK	Solace Corporation	U.S.	7,627,570	12/01/2009
LOW LATENCY, HIGH THROUGHPUT DATA STORAGE SYSTEM	Solace Corporation	U.S.	7,716,525	05/11/2010
LOW LATENCY AND ASSURED DELIVERY USING HTTP	Solace Corporation	U.S.	7,747,694	06/29/2010

Patent Name	Owner	Country	Patent No. (Application No.)	Reg. Date (Application Date)
CONTENT ROUTER WITH MULTIPLE FORWARDING ELEMENTS INSTANTIATED ON HARDWARE ENTITIES	Solace Corporation	U.S.	7,844,733	11/30/2010
ROUTER REDUNDANCY IN DATA COMMUNICATION NETWORKS	Solace Corporation	U.S.	7,859,882	12/28/2010
DATA LOGGING IN CONTENT ROUTED NETWORKS	Solace Corporation	U.S.	7,895,158	02/22/2011
DYNAMIC LINKS IN CONTENT-BASED NETWORKS	Solace Corporation	U.S.	7,895,299	02/22/2011
METHOD AND APPARATUS FOR OPERATIONS, ADMINISTRATION AND MAINTENANCE OF A NETWORK MESSAGING LAYER	Solace Corporation	U.S.	7,924,730	04/12/2011
SERVICEABLE NETWORKING APPLIANCE CHASSIS	Solace Corporation	U.S.	8,107,256	01/31/2012
SUBSCRIPTION MANAGEMENT AND ROUTING PROTOCOL (SMRP) AND METHOD	Solace Corporation	U.S.	8,467,389	06/18/2013

Patent Name	Owner	Country	Patent No. (Application No.)	Reg. Date (Application Date)
CONTENT ROUTING IN DIGITAL COMMUNICATIONS NETWORKS	Solace Corporation	U.S.	8,477,627	07/02/2013
REPLICATION IN ASSURED MESSAGING SYSTEM	Solace Corporation	U.S.	9,319,267	04/19/2016
MESSAGING SYSTEM WITH DISTRIBUTED FILTERING MODULES WHICH REGISTER INTERESTS, REMOVE ANY MESSAGES THAT DO NOT MATCH THE REGISTERED INTEREST, AND FORWARD ANY MATCHED MESSAGES FOR DELIVERY	Solace Corporation	U.S.	9,319,362	04/19/2016
MESSAGE DELIVERY SYSTEM AND METHOD WITH QUEUE NOTIFICATION	Solace Corporation	U.S.	9,426,115	08/23/2016
ASSURED MESSAGING SYSTEM WITH DIFFERENTIATED REAL TIME TRAFFIC	Solace Corporation	U.S.	9,509,529	11/29/2016
TOPIC DISCARD INDICATION	Solace Corporation	U.S.	9,515,943	12/06/2016

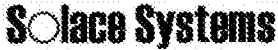
Patent Name	Owner	Country	Patent No. (Application No.)	Reg. Date (Application Date)
GEOSPATIALLY AWARE MESSAGE SYSTEM AND METHOD	Solace Corporation	U.S.	(12/698,257)	(02/02/2010)

**EXHIBIT C
TRADEMARKS**

CANADIAN TRADEMARKS

Trademark	TMA No.	Application No.	Status
SOLACE	N/A	1122198-01	Formalized
SOLACE	TMA626586	1122198	Registered
THAT'S POSSIBLE	N/A	1909877	Formalized
SOLACE & Design 	N/A	1909875	Formalized
Solace Systems & Design 	TMA652931	1217719	Registered
THE INTELLIGENCE IN THE NETWORK.	TMA668650	1246752	Registered
Solace Logo (New) 	N/A	1801226	Allowed

UNITED STATES TRADEMARKS

Mark Name	Owner	Country	Reg. No. (App. No.)	Reg. Date (App. Date)
THE INTELLIGENCE IN THE NETWORK	Solace Corporation	U.S.	3,291,676	09/11/2007
SOLACE SYSTEMS and Design 	Solace Corporation	U.S.	3,050,926	01/24/2006
SOLACE SYSTEMS and Design 	Solace Corporation	U.S.	3,160,020	10/17/2006
SOLACE	Solace Corporation	U.S.	2,926,975	02/15/2005
THE CONTENT IS THE NETWORK	Solace Systems, Inc.	U.S.	(78/432,887)	(06/10/2004)
THE CONTENT IS THE NETWORK	Solace Systems, Inc.	Canada	(1,217,720)	(05/21/2004)
THE INTELLIGENCE IN THE NETWORK	Solace Systems, Inc.	Canada	(1,246,261)	(02/07/2005)

Mark Name	Owner	Country	Reg. No. (App. No.)	Reg. Date (App. Date)
SOLACE	Solace Corporation	U.S.	(88/034,715)	(07/12/2018)
SOLACE	Solace Corporation	U.S.	(88/032,270)	(07/10/2018)
SOLACE. THAT'S POSSIBLE (Stylized) solace. That's possible	Solace Corporation	U.S.	(88/031,824)	(07/10/2018)
SOLACE. THAT'S POSSIBLE (Stylized) solace. That's possible	Solace Corporation	U.S.	(88/031,600)	(07/10/2018)
THAT'S POSSIBLE	Solace Corporation	U.S.	(88/031,535)	(07/10/2018)
THAT'S POSSIBLE	Solace Corporation	U.S.	(88/031,479)	(07/10/2018)
SOLACE. (Stylized) solace.	Solace Corporation	U.S.	(88/024,920)	(07/03/2018)
SOLACE. (Stylized) solace.	Solace Corporation	U.S.	(88/025,047)	(07/03/2018)
SOLACE and Design 	Solace Corporation	U.S.	5,367,547	01/02/2018
SOLACE and Design 	Solace Corporation	U.S.	5,234,014	06/27/2017
SOLACE	Solace Corporation	Canada	TMA626,586	11/24/2004
SOLACE and Design 	Solace Corporation	Canada	(1,801,226)	(09/20/2016)
SOLACE and Design solace.	Solace Corporation	Canada	(1,909,875)	(07/17/2018)
SOLACE	Solace Corporation	Canada	TMA 626,586	11/24/2004

Mark Name	Owner	Country	Reg. No. (App. No.)	Reg. Date (App. Date)
SOLACE SYSTEMS O and Design Solace Systems	Solace Corporation	Canada	TMA 652,931	11/17/2005
THAT'S POSSIBLE	Solace Corporation	Canada	(1,909,877)	(07/17/2018)
THE INTELLIGENCE IN THE NETWORK	Solace Corporation	Canada	TMA 668,650	07/25/2006