

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT4836692

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
CONVEYING PARTY DATA	
Name	Execution Date
LIGHTBEND, INC.	02/14/2018
RECEIVING PARTY DATA	
Name:	HERCULES CAPITAL, INC., AS AGENT
Street Address:	400 HAMILTON AVE., STE. 310
Internal Address:	ATTN: LEGAL DEPARTMENT
City:	PALO ALTO
State/Country:	CALIFORNIA
Postal Code:	94301
PROPERTY NUMBERS Total: 10	
Property Type	Number
Application Number:	14878910
Patent Number:	9632858
Patent Number:	9558056
Application Number:	15289080
Application Number:	15289112
Application Number:	15289114
Application Number:	15289115
Application Number:	62433699
Application Number:	14877923
Application Number:	15494519
CORRESPONDENCE DATA	
Fax Number:	(858)550-6420
<i>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.</i>	
Phone:	858-550-6433
Email:	jmfitzpatrick@cooley.com
Correspondent Name:	JENNIFER FITZPATRICK
Address Line 1:	C/O COOLEY LLP
Address Line 2:	4401 EASTGATE MALL
Address Line 4:	SAN DIEGO, CALIFORNIA 92121

PATENT

ATTORNEY DOCKET NUMBER:	305866-1029
NAME OF SUBMITTER:	JENNIFER FITZPATRICK
SIGNATURE:	/JENNIFER FITZPATRICK/
DATE SIGNED:	02/22/2018
Total Attachments: 6 source=Intellectual Property Agreement - Lightbend (2.14.2018)#page1.tif source=Intellectual Property Agreement - Lightbend (2.14.2018)#page2.tif source=Intellectual Property Agreement - Lightbend (2.14.2018)#page3.tif source=Intellectual Property Agreement - Lightbend (2.14.2018)#page4.tif source=Intellectual Property Agreement - Lightbend (2.14.2018)#page5.tif source=Intellectual Property Agreement - Lightbend (2.14.2018)#page6.tif	

INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement (as amended, restated, supplemented or otherwise modified from time to time, the "Agreement") is entered into as of February 14, 2018 by and among HERCULES CAPITAL, INC., a Maryland corporation ("Agent"), and LIGHTBEND, INC. (formerly known as Typesafe, Inc.), a Delaware corporation ("Grantor").

RECITALS

A. Lender has agreed to make certain advances of money and to extend certain financial accommodation (the "Loans") to Grantor in the amounts and manner set forth in that certain Loan and Security Agreement by and among the several entities from time to time parties thereto (collectively, referred to as "Lender"), Agent, Grantor and any other parties thereto, from time to time, dated as of the date hereof (as amended, modified, supplemented or otherwise modified from time to time, the "Loan Agreement").

B. As a condition to the Loan Agreement, Grantor are required to enter into this Agreement to further evidence the grant to Agent of the security interest in its Copyrights, Trademarks and Patents to secure the Secured Obligations.

AGREEMENT

NOW, THEREFORE, Grantor agrees as follows:

To secure the Secured Obligations and any other obligations pursuant to the Loan Documents, Grantor grants and pledges to Agent a security interest in all of Grantor's Intellectual Property (including without limitation those Copyrights, Patents and Trademarks listed on Exhibits A, B and C hereto).

This security interest is granted in conjunction with the security interest granted to Agent under the Loan Agreement. The rights and remedies of Agent with respect to the security interest are as set forth in the Loan Agreement and the other Loan Documents or as are now or hereafter available to Agent as a matter of law or equity, shall be cumulative and concurrent.

Grantor represents and warrants that Exhibits A, B, and C attached hereto set forth any and all Copyrights, Patents and Trademarks in connection with which such Grantor has registered or filed an application with the United States Patent and Trademark Office or the United States Copyright Office, as applicable.

Grantor hereby authorizes Agent to (a) modify this Agreement unilaterally by amending the exhibits to this Agreement to include any Intellectual Property which Grantor obtains subsequent to the date of this Agreement, and (b) file a duplicate original of this Agreement containing amended exhibits reflecting such new Intellectual Property.

All capitalized terms used herein without definition shall have the meanings ascribed thereto in the Loan Agreement.

[SIGNATURES TO FOLLOW]

[SIGNATURE PAGE TO INTELLECTUAL PROPERTY SECURITY AGREEMENT]

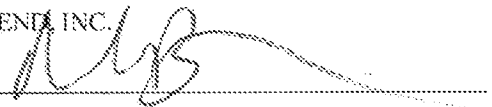
IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed effective as of the date set forth above.

Address of Grantor:

625 Market Street
10th Floor
San Francisco, CA 94105
Attention: Mark Brewer

GRANTOR:

LIGHTBEND INC.

By: 

Name: Mark Brewer

Title: President and CEO

[SIGNATURE PAGE TO INTELLECTUAL PROPERTY SECURITY AGREEMENT]

Address of Agent:

Legal Department
400 Hamilton Avenue, Suite 310
Palo Alto, CA 94301
Attn: Loan Documentation

AGENT:

HERCULES CAPITAL, INC.

By: 

Name: Zhuo Huang

Title: Associate General Counsel

EXHIBIT A
COPYRIGHTS

Description	Registration Number	Registration Date
None.		

EXHIBIT B
PATENTS

Description	Patent / Application Number	Issue / Application Date
HIERARCHICAL SERVICE ORIENTED APPLICATION TOPOLOGY GENERATION FOR A NETWORK	14/878,910	10/08/15
ORGANIZING NETWORK PERFORMANCE METRICS INTO HISTORICAL ANOMALY DEPENDENCY DATA	9,632,858	04/25/17
ORGANIZING NETWORK PERFORMANCE METRICS INTO HISTORICAL ANOMALY DEPENDENCY DATA	9,558,056	01/31/17
SYSTEMS AND METHODS OF CONSTRUCTING AND MONITORING A NETWORK TOPOLOGY	15/289,080	10/07/16
CONTEXT-AWARE RULE ENGINE FOR ANOMALY DETECTION	15/289,112	10/07/16
TUNING CONTEXT-AWARE RULE ENGINE FOR ANOMALY DETECTION	15/289,114	10/07/16
SYSTEMS AND METHODS OF CONSTRUCTING AND MONITORING A NETWORK TOPOLOGY	15/289,115	10/07/16
RESOURCE AND METRIC RANKING BY DIFFERENTIAL ANALYSIS	62/433,699	12/13/16
ANOMALY DETECTION USING CIRCUMSTANCE- SPECIFIC DETECTORS	14/877,923	10/07/15
RANKING NETWORK ANOMALIES IN AN ANOMALY CLUSTER	15/494,519	04/23/17

EXHIBIT C
TRADEMARKS

Description	Registration/ Serial Number	Registration/ Application Date
LIGHTBEND	5,177,485	04/04/17
LIGHTBEND REACTIVE PLATFORM	86/906,989	02/12/16
TYPESAFE	4,165,433	06/26/12
TYPESAFE	4,554,495	06/24/14
TYPESAFE ACTIVATOR	4,546,449	06/10/14
BOLDRADIUS	4,948,966	05/03/16