PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4028030

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
AVVASI INC.	08/19/2016

RECEIVING PARTY DATA

Name:	NETSCOUT SYSTEMS TEXAS, LLC
Street Address:	310 LITTLETON ROAD
City:	WESTFORD
State/Country:	MASSACHUSETTS
Postal Code:	01886

PROPERTY NUMBERS Total: 22

Property Type	Number
Patent Number:	8719437
Patent Number:	8599684
Patent Number:	9178633
Patent Number:	9032427
Application Number:	13231497
Patent Number:	9191284
Patent Number:	9037743
Patent Number:	9042449
Patent Number:	9118738
Application Number:	13631366
Application Number:	13724523
Application Number:	13852927
Application Number:	14029363
Application Number:	14066306
Application Number:	14328279
Application Number:	14453378
Application Number:	14474456
Application Number:	14508345
Application Number:	14531391
Application Number:	14621676

PATENT REEL: 039565 FRAME: 0678

503981374

Property Type	Number
Application Number:	14672489
Application Number:	62295193

CORRESPONDENCE DATA

Fax Number: (888)325-9478

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using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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ATTORNEY DOCKET NUMBER:	1510796.00001
NAME OF SUBMITTER:	CHRISTOPHER J. CAPELLI
SIGNATURE:	/Christopher J. Capelli/
DATE SIGNED:	08/29/2016

Total Attachments: 11

source=NetScout - Avvasi - Patent Assignment Agreement#page1.tif source=NetScout - Avvasi - Patent Assignment Agreement#page2.tif source=NetScout - Avvasi - Patent Assignment Agreement#page3.tif source=NetScout - Avvasi - Patent Assignment Agreement#page4.tif source=NetScout - Avvasi - Patent Assignment Agreement#page5.tif source=NetScout - Avvasi - Patent Assignment Agreement#page6.tif source=NetScout - Avvasi - Patent Assignment Agreement#page7.tif source=NetScout - Avvasi - Patent Assignment Agreement#page8.tif source=NetScout - Avvasi - Patent Assignment Agreement#page9.tif source=NetScout - Avvasi - Patent Assignment Agreement#page10.tif source=NetScout - Avvasi - Patent Assignment Agreement#page11.tif

PATENT ASSIGNMENT AGREEMENT

This **PATENT ASSIGNMENT AGREEMENT**, effective as of August 19, 2016 (the "**Effective Date**"), is made between **Avvasi Inc.**, a corporation incorporated under the *Business Corporations Act* (Ontario) (the "**Assignor**") and **NetScout Systems Texas**, **LLC**, a Delaware corporation ("**Assignee**").

WHEREAS, the Assignor is the sole and lawful owner of the entire right, title, and interest in and to any Letters Patent(s) (the "patent(s)") and any Patent application(s) (the "application(s)") set forth in <u>Schedule A</u> and attached hereto (the "**Patent Assets**"), as well as any invention(s) (the "invention(s)") disclosed in the application(s) and the patent(s);

WHEREAS, the Assignor and Assignee are parties to an Asset Purchase Agreement of even date herewith (the "Purchase Agreement"), pursuant to which the Assignor has agreed to sell, assign, transfer, convey, and deliver to Assignee, certain assets, including, without limitation, the Patent Assets; and

WHEREAS, pursuant to the Purchase Agreement, the Assignor and Assignee have agreed to enter into this Patent Assignment Agreement.

NOW, THEREFORE, in consideration of the promises and covenants set forth in the Purchase Agreement and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and to the extent that the Assignor has not done so already via a prior agreement with the Assignee or a predecessor in interest of the Assignee, or if the Assignor has already done so via a prior agreement with the Assignee or a predecessor in interest of the Assignee then in confirmation of any obligation to do so in said prior agreement, the parties hereto agree as follows:

- 1. <u>Conveyance</u>. The Assignor has sold, assigned, transferred, conveyed, delivered, and set over, and by these presents does hereby sell, assign, transfer, convey, deliver, and set over, to Assignee, its successors, legal representatives, and assigns the entire right, title and interest in, to and under
 - (i) the invention(s) disclosed in each of the application(s) and the patent(s) identified in the Patent Assets;
 - (ii) the application(s) and the patent(s) identified in the Patent Assets;
 - (iii) the right to file application(s) for patent of the United States or other countries on the invention(s), including all rights under the Hague Convention, the Paris Convention for the Protection of Industrial Property and under the Patent Cooperation Treaty, and all rights of claiming priority in any country of the world;

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- (iv) any application(s) for patent of the United States or other countries claiming the invention(s);
- (v) any application(s) for patent of the United States or other countries claiming priority to, and/or the benefit of, an application(s) for patent identified in the Patent Assets or any application(s) for patent claiming the invention(s), including any substitute application(s), division(s), continuation(s), and continuation(s)-in-part;
- (vi) any provisional or other right to recover any and all past, present, and future damages, including royalties, for any and all past, present, and future infringements, misappropriations or unauthorized uses of any application for patent identified in the preceding paragraphs (ii)-(v) and of any and all patent(s) granted based thereon in the United States and in all other countries; and
- (vii) any patent(s) of the United States or other countries that may be granted for or on any application(s) for patent identified in the preceding paragraphs (ii)-(v), including any reissue(s), reexamination(s), revival(s), renewal(s) and extension(s) of said patent(s).
- 2. Recordation and Issuance. The Assignor hereby requests the Commissioner for Patents of the United States Patent and Trademark Office, and any other applicable governmental entity or registrar (including any applicable foreign or international office or registrar), to issue the patents to the Assignee as the assignee and owner of the Patent Assets for the sole use and enjoyment of the Assignee, its successors, legal representatives, and assigns. The Assignor hereby authorizes and requests the officials of all countries in which any domestic or foreign patent application that claims priority to, and/or the benefit of, any of the Patent Assets, to recognize the Assignee as the exclusive owner in right, title and interest in and to such domestic or foreign patent application, and to issue or grant such domestic or foreign patent applications for the sole use and enjoyment of Assignee, its successors, legal representatives, and assigns.
- 3. Information and Assistance. The Assignor hereby agrees to not execute any writing or do any act which would conflict with this Patent Assignment Agreement, and that the Assignor will, at any time upon request, without further or additional consideration but at the expense of said Assignee, do additional acts as the Assignee, its successors, legal representatives, and assigns may deem necessary or desirable to inure to the benefit of the Assignee, its successors, legal representatives, and assigns, with respect to the Patent Assets and the rights conveyed under this Patent Assignment Agreement, said additional acts including but not limited to (i) executing additional assignments and other writings to perfect the Assignee's rights granted hereunder to the Patent Assets, (ii) giving testimony in any proceedings or transactions involving any of the Patent Assets, and (iii) providing preliminary statements and affidavits for procuring, maintaining, or enforcing any of the Patent Assets.

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- 4. <u>Successors and Assigns</u>. This Patent Assignment Agreement and all the provisions hereof shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and permitted assigns and nothing herein express or implied shall give or be construed to give to any person, other than the parties hereto and such permitted assigns, any legal or equitable rights hereunder.
- 5. <u>Counterparts</u>. This Patent Assignment Agreement may be executed in two or more consecutive counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument, and shall become effective when one or more counterparts have been signed by each of the parties and delivered (by facsimile or otherwise) to the other parties.
- 6. <u>Section Headings</u>. The section headings contained in this Patent Assignment Agreement are for reference purposes only, and shall not in any way affect the meaning or interpretation of this Patent Assignment Agreement.
- 7. Purchase Agreement Controls. This Patent Assignment Agreement is provided pursuant to the Purchase Agreement, to which reference is made for a further statement of the rights and obligations of the Assignor and Assignee with respect to the Patent Assets. Nothing contained in this Patent Assignment Agreement shall be deemed to modify, supersede, enlarge or affect the rights of any person under the Purchase Agreement. If any provision of this Patent Assignment Agreement is inconsistent with or conflicts with the Purchase Agreement, the Purchase Agreement shall control.
- 8. Governing Law. This Patent Assignment Agreement and all claims or causes of action (whether in contract, tort or otherwise) that may be based upon, arise out of or relate to this Patent Assignment Agreement or the negotiation, execution or performance of this Patent Assignment Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, regardless of laws that might otherwise govern under applicable principles of conflicts of law thereof.

[Signature Page Follows]

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IN WITNESS WHEREOF, the undersigned have caused this Patent Assignment Agreement to be executed as of the Effective Date.

ASSIG	SNOR:
ÁVVAS	i Ínc.
By:	
Name:	Siste Vine
Title:	Pasidell
Date:	August 19, 2016
Acknow	wledged and Accepted:
NETSC	OUT SYSTEMS TEXAS, LLC
By:	
Name:	Michael Szabados
	President
Date:	August, 2016

IN WITNESS WHEREOF, the undersigned have caused this Patent Assignment Agreement to be executed as of the Effective Date.

ASSIG	NOK:
ÄVVAS	TING.
By:	
Name:	
Title:	
Date:	August, 2016
ASSIG	wledged and Accepted:
NETSC	OUT SYSTEMS TEXAS, LLC
By:	Wisher
Name:	Michael Szabados
Title:	President
Date:	August 19, 2016

NOTARIAL CERTIFICATE

Canada)	To all whom these Presents
Province of Ontario)))	may come, be seen or known
To Wit:))	
		d for the Province of Ontario, by Royal Authority
dury appointed, residing at the City of		in said Province, Do Certify and
Attest that:		
Mate Paga	is perso	nally known to me and he did sign the foregoing
Patent Assignment Agreement		
the said Mate Organ	Ľ.	s the Personal to Annas Inc
and is duly	authoriz	ed to execute the attached Patent Assignment
		y (; and
Marcon Mathematica (1980) - Double of Company (1	· •	
In lestimony Whereof I have here	do subsc	ribed my name and affixed my Notarial Seal of
Office at the City of Kitchener, in the	Province	of Ontario, this <u>19</u> day of August, 2016.

Notary Public in and for the Province of Ontario

SCHEDULE A TO PATENT ASSIGNMENT AGREEMENT

APPARATUS AND METHODS FOR OPTIMIZING NETWORK	20140012981	13/724,523	US	12/21/2012
SYSTEMS AND METHODS FOR MEDIA SERVICE DELIVERY	20130086279	13/631,366	S	9/28/2012
SYSTEMS AND METHODS FOR CONTROLLING ACCESS TO A MEDIA STREAM	9,118,738	13/630,326	US	9/28/2012
SYSTEMS AND METHODS FOR DYNAMIC TRANSCODING OF INDEXED MEDIA FILE FORMATS	9,042,449	13/628,591	S	9/27/2012
METHODS AND APPARATUS FOR PROVIDING A PRESENTATION QUALITY SIGNAL	9,037,743	13/480,964	S	5/25/2012
METHODS AND APPARATUS FOR PROVISING A MEDIA STREAM QUALITY SIGNAL	9,191,284	13/283,898	S	10/28/2011
DEVICE WITH VIDEO BUFFER MODELING AND METHODS FOR USE THEREWITH	20120110167	13/231,497	S	9/13/2011
SYSTEM FOR MONITORING A VIDEO NETWORK AND METHODS FOR USE THEREWITH	9,032,427	13/191,629	S	7/27/2011
DELIVERY QUALITY OF EXPERIENCE (QOE) IN A COMPUTER NETWORK	9,178,633	13/053,650	Sn	3/22/2011
CONGESTION ESTIMATION	8,599,684	13/053,565	US	3/22/2011
ENABLING STREAMING TO A MEDIA PLAYER WITHOUT NATIVE STREAMING SUPPORT	8,719,437	12/540,733	S	8/13/2009
Title	Publication Number	Serial Number	Country	Filing Date

¹ ABANDONED

				DATA TRANSMISSION
3/28/2013	SU	13/852,927	20130301415	METHODS AND SYSTEMS FOR MANAGING MEDIA TRAFFIC BASED ON NETWORK CONDITIONS
9/17/2013	S	14/029,363	20140082206	METHOD AND APPARATUS FOR MEDIA SESSION IDENTIFICATION, TRACKING, AND ANALYSIS
10/29/2013	S	14/066,306	20140181266	SYSTEM, STREAMING MEDIA OPTIMIZER AND METHODS FOR USE THEREWITH
7/10/2014	S	14/328,279 ¹	20150082345	SYSTEM FOR GENERATING ENHANCED ADVERTIZEMENTS AND METHODS FOR USE THEREWITH
8/6/2014	S	14/453,378	20140372591	SYSTEMS FOR MEDIA POLICY DECISION AND CONTROL AND METHODS FOR USE THEREWITH
9/2/2014	SN	14/474,456	20150089026	AND AND
10/7/2014	S	14/508,345	20150026309	SYSTEMS AND METHODS FOR ADAPTIVE STREAMING CONTROL
11/3/2014	S	14/531,391	20150052246	SYSTEMS AND METHODS FOR MODELING QUALITY OF SERVICE FOR STREAMING MEDIA
2/13/2015	S	14/621,676	20150163273	MEDIA BIT RATE ESTIMATION BASED ON SEGMENT PLAYBACK DURATION AND SEGMENT DATA LENGTH
3/30/2015	S	14/672,489	20150222939	SYSTEM FOR MONITORING A VIDEO NETWORK AND

3 INTERNAL DRAFT

² PROVISIONAL FILED

2/15/2016 S S 62/295,193 [Acknowledgement and Signature Page Follows] i ; AVV029 - PAGE LOAD TIME MEASUREMENT ³ AVV028 — ENCRYPTED VIDEO TRAFFIC MEASUREMENT 2 METHODS FOR USE THEREWITH

Avvasi Inc. Name:

NETSCOUT SYSTEMS TEXAS, LLC

Date: Title: August _____ 2016 President

Name: Michael Szabados

Acknowledgement by:

[Acknowledgement and Signature Page to Schedule A to Patent Assignment Agreement]

X13X	Date:	Title	Name:	AVVASI INC.
NetScout Systems Texas, LLC				SK INC
Karen Karen				
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•				

Name:

President

Michael Szabados Manadaman (140 18, 224)

Date:

August 19, 2016

PATENT REEL: 039565 FRAME: 0690

RECORDED: 08/29/2016