PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4763282

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
AGE KVALNES	12/15/2017
DMITRIY MEYERZON	12/14/2017
JEFFREY L. WIGHT	12/15/2017
NIKITA VORONKOV	01/02/2018
PRAVEEN KUMAR REDDY MALIREDDY	12/19/2017

RECEIVING PARTY DATA

Name:	MICROSOFT TECHNOLOGY LICENSING, LLC
Street Address:	ONE MICROSOFT WAY
City:	REDMOND
State/Country:	WASHINGTON
Postal Code:	98052

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15714677

CORRESPONDENCE DATA

Fax Number:

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.

Email: usdocket@microsoft.com

Correspondent Name: SCHWEGMAN LUNDBERG & WOESSNER, P.A.

Address Line 1: P.O. BOX 2938

Address Line 4: MINNEAPOLIS, MINNESOTA 55402

ATTORNEY DOCKET NUMBER:	402878-US-NP 1777.523US1
NAME OF SUBMITTER:	ROWENA J ARTHURS
SIGNATURE:	/Rowena J Arthurs/
DATE SIGNED:	01/05/2018

Total Attachments: 11

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PATENT REEL: 044548 FRAME: 0178

RECORDATION FORM COVER SHEET PATENTS ONLY

Atty Ref/Docket No.: 402878-US-NP (1777.523US1) Patent and Trademark Office To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof. 2. Name and address of receiving party(ies): 1. Name of conveying party(ies): Name: Microsoft Technology Licensing, LLC Age Kvalnes, Dmitriy Meyerzon, Jeffrey L. Wight, Nikita Voronkov, Praveen Kumar Reddy Malireddy Street Address: One Microsoft Way City: Redmond State: WA Zip Country: United States of America Additional name(s) of conveying party(ies) attached? Zip: <u>98052</u> [|Yes [X]No Additional name(s) & address(es) attached? [[Yes 3. Nature of conveyance: IXINo [X] Assignment [] Merger [] Security Agreement[] Change of Name [] Other Execution Date: December 15, 2017, December 14, 2017, December 15, 2017, January 2, 2018, December 19, 2017 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) Serial No. 15/714,677 Filed September 25, 2017 Additional numbers attached? []Yes [X]No 6. Total number of applications and patents involved: 1 5. Name and address of party to whom correspondence concerning document should be mailed: 7. Total fee (37 CFR 3.41):\$ <u>0.00</u> Name: Susan Yee [[Enclosed [Authorized to be charged to deposit account Address: 19-0743 Schwegman Lundberg & Woessner, P.A. P.O. Box 2938 8. Please charge any additional fees or credit any over Minneapolis, Minnesota 55402--0938 payments to our Deposit Account No.: 19-0743 DO NOT USE THIS SPACE 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. January 4, 2018 Susan Yee/Reg. No. 41,388 Name of Person Signing Total number of pages including cover sheet: 11

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

P.O. Box 1450 Alexandria, VA 22313-1450 I Age Kvalnes ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SYSTEM OF MOBILE NOTIFICATION DELIVERY UTILIZING BLOOM FILTERS", which:

will b	e filed	. ASSIGNO	R hereby	authoriz	es, and	requ	jests,
ASSIGN	IEE'S le	gal represent	ative, Mici	osoft Te	chnology	Licer	ısing,
LLC, O	ne Micr	osoft Way, Re	dmond, Wa	shington	98052 (/	٩SSIG	NEE'S
LEGAL	REPRE	SENTATIVES),	to insert	here in	parenth	2585	(filed
on		and (given Appli	cation No	•	***********	by
the fo	ollowing	g Office			~~~~)	this
APPLIC	ATION'	s Application I	No., filing c	late, and	Office, wh	ien kr	iown;

Was filed on <u>September 25, 2017</u> and was given Application No 15/714,677 by the following Office "US Patent Office ":

Microsoft Technology Licensing, LLC, a Washington limited liability company, on behalf of itself and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous of acquiring, the entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S LEGAL REPRESENTATIVES to insert the Application No., filing date, and Office into the following table for any APPLICATION DERIVATIVES after they are known;

	Application No.	Filing Date	Office	
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received				

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For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to the ASSIGNEE, ASSIGNOR's entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

Age Kooles Inventor's Signature	<u> </u>
Age Kvalnes	
Printed Name in English	Printed Name in Native Language
	(if other than English)

inventor of subject matter ("I	NVENTION") disclosed a	
application entitled "SYSTEM O	<u>F MOBILE NOTIFICATION.</u>	DETIATERA OTITIZINO BLOOM
FILTERS", which:		
en e		
LJ will be filed.	ASSIGNOR hereby autho	rizes, and requests,
ASSIGNEE'S legal r	epresentative, Microsoft	Technology Licensing,
LLC, One Microsoft	: Way, Redmond, Washingt	on 98052 (ASSIGNEE'S
	ATIVES), to insert here	-
on	and given Application	Noby
the following OI	fice	this
APPLICATION's App	olication No., filing date, ar	nd Office, when known;
🖾 was filed on <u>Septer</u>	<u>nber 25, 2017</u> and was giv	ven Application No
<u>15/714,677</u> by the	following Office " <u>US Pater</u>	nt Office ":
Microsoft Technology Lice	ensing, LLC, a Washington	limited liability company, on
behalf of itself and its successors	and assigns ("ASSIGNEE"),	, is entitled to, and is desirous
of acquiring, the entire and exc	clusive rights, title and in	terest, including the right of
priority, in the INVENTION and the	he APPLICATION (and all o	ther applications and patents
derived therefrom, such as cont	inuing applications, in wh	ole or in part, in and for the
United States, its territories, and	all foreign countries ("API	PLICATION DERIVATIVES"));
ASSIGNOR hereby authori:	zes, and requests, ASSIGN	EE'S LEGAL REPRESENTATIVES
to insert the Application No., fi	iling date, and Office into	the following table for any
APPLICATION DERIVATIVES after	they are known;	
Application No.	Filing Date	Office
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and the second s	Quitag h	eyepro (2(14/17	
-	Inventor's Signature	Date	
	Dmitriy Meyerzon	Drintad Bizma in Biztica I z	
-	Printed Name in English	Printed Name in Native La	nguage
ţ		(if other than English)	

I Jeffrey L. Wight ("ASSIGNOR") am the original inventor or an original joint in	ventor
of subject matter ("INVENTION") disclosed and/or claimed in a patent application e	ntitled
"SYSTEM OF MOBILE NOTIFICATION DELIVERY UTILIZING BLOOM FILTERS", which:	

will be	e filed.	ASSIGNO	R hereby	autho	rizes,	and re	quests,
ASSIGN	EE'S leg	al represen	tative, Mic	rosoft	Techno	ology Lic	ensing,
LLC, O	ne Micro	soft Way, Re	edmond, W	ashingt	on 980	D52 (ASSI	GNEE'S
LEGAL	REPRES	ENTATIVES),	to insert	here	in pai	renthese:	s (filed
on		and	given Appl				
the fo	llowing	Office				10, ²) this
APPLIC	ATION's	Application	No., filing	date, ar	id Offic	ce, when	known;

was filed on <u>September 25, 2017</u> and was given Application No <u>15/714,677</u> by the following Office "US Patent Office":

Microsoft Technology Licensing, LLC, a Washington limited liability company, on behalf of itself and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous of acquiring, the entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S LEGAL REPRESENTATIVES to insert the Application No., filing date, and Office into the following table for any APPLICATION DERIVATIVES after they are known;

Acres Contracts	Application No.	Filing Date	Office

For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to the ASSIGNEE, ASSIGNOR's entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

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fulfentor's Signature	Date
*	
Jeffrey L. Wight	
Printed Name in English	Printed Name in Native Language
	(if other than English)

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		1	inal inventor or an original joint	
	•	subject matter ("INVENTION") disclosed and/or claimed in a		
- "		JE MUBILE NUTIFICAT	TON DELIVERY UTILIZING BLOOM	
FILTERS", wh	ucn:			
gamang gamang	and the state of t			
	will be filed.	ASSIGNOR hereby a	uthorizes, and requests,	
	ASSIGNEE'S legal	representative, Micro	soft Technology Licensing,	
•	LLC, One Microsol	ft Way, Redmond, Was	hington 98052 (ASSIGNEE'S	
	LEGAL REPRESEN	TATIVES), to insert h	iere in parentheses (filed	
	on	and given Applica	ition Noby	
	the following C	office		
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		mber 25, 2017 and ware following Office "US	as given Application No <u>Patent Office</u> ";	
behalf of its of acquiring priority, in t derived ther United State ASSIC to insert the	elf and its successor	's and assigns ("ASSIGN clusive rights, title ar the APPLICATION (and tinuing applications, i d all foreign countries izes, and requests, AS filing date, and Office	igton limited liability company, or IEE"), is entitled to, and is desirous and interest, including the right of all other applications and patents in whole or in part, in and for the ("APPLICATION DERIVATIVES")); SIGNEE'S LEGAL REPRESENTATIVES into the following table for any	
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Application	No.	Filing Date	Office	

For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to the ASSIGNEE, ASSIGNOR's entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

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and the second second	Noha	1/2/2018
***************************************	Inventor's Signature	Date
*****	Nikita Voronkov	HUKUTA BOPOHKOB
	Printed Name in English	Printed Name in Native Language
-		(if other than English)

PATENT ASSIGNMENT

MS Docket No.: 402878-US-NP

original join	t inventor of subje ication entitled " <u>S</u>)	ct matter ("INVENTION")	im the original inventor or ar disclosed and/or claimed in a ICATION DELIVERY UTILIZING
	ASSIGNEE'S legal LLC, One Microsof LEGAL REPRESENT on the following O	ASSIGNOR hereby auth representative, Microsoft ft Way, Redmond, Washing FATIVES), to insert here and given Application office	Technology Licensing, pton 98052 (ASSIGNEE'S in parentheses (filed in Noby this
×		<u>mber 25, 2017</u> and was g a following Office " <u>US Pate</u>	
behalf of itse of acquiring priority, in the derived there United States	if and its successor, the entire and ex se INVENTION and t efrom, such as cont i, its territories, and	s and assigns ("ASSIGNEE") clusive rights, title and in he APPLICATION (and all o tinuing applications, in wi I all foreign countries ("AP	n limited liability company, on it, is entitled to, and is desirous oterest, including the right of other applications and patents hole or in part, in and for the PLICATION DERIVATIVES"));
to insert the		iling date, and Office int	o the following table for any
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Viaveen	12/19/2017
Inventor's Signature	Date
Praveen Kumar Reddy Malireddy	
Printed Name in English	Printed Name in Native Language
	(if other than English)