### 07/18/2017 504461926

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4508628

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
KIM HENRY MARTIN LAINE	01/17/2017
HAO CHEN	01/16/2017
GIZEM S. CETIN	01/16/2017
YUHOU XIA	01/16/2017
PETER B. RINDAL	01/26/2017
KRISTIN ESTELLA LAUTER	01/17/2017

### **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:	15630761		

## **CORRESPONDENCE DATA**

Fax Number: (509)755-7252

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: 509-755-7262

ecdocket@microsoft.com Email:

WOLFE-SBMC **Correspondent Name:** 116 W PACIFIC AVE Address Line 1:

Address Line 2: SUITE 300

Address Line 4: SPOKANE, WASHINGTON 99201

ATTORNEY DOCKET NUMBER:	400562-US-NP
NAME OF SUBMITTER:	DAVID A. MORASCH, REG.# 42,905
SIGNATURE:	/ Dave Morasch 42905 /
DATE SIGNED:	07/18/2017

**PATENT** REEL: 043034 FRAME: 0704 504461926

# Total Attachments: 12 source=400562-US-NP Assignments#page1.tif source=400562-US-NP Assignments#page2.tif source=400562-US-NP Assignments#page3.tif source=400562-US-NP Assignments#page4.tif source=400562-US-NP Assignments#page5.tif source=400562-US-NP Assignments#page6.tif source=400562-US-NP Assignments#page7.tif source=400562-US-NP Assignments#page8.tif source=400562-US-NP Assignments#page9.tif source=400562-US-NP Assignments#page10.tif source=400562-US-NP Assignments#page11.tif source=400562-US-NP Assignments#page12.tif

PATENT REEL: 043034 FRAME: 0705 I <u>Kim Henry Martin Laine</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "<u>String Matching on Encrypted Data</u>" ("APPLICATION"), which:

will be filed. ASSIGNOR hereby authorizes, and requests,
ASSIGNEE'S legal representative, Microsoft Technology Licensing,
LLC., One Microsoft Way, Redmond, Washington 98052 (ASSIGNEE'S
LEGAL REPRESENTATIVES), to insert here in parentheses (filed
on and given Application No by
the following Office
APPLICATION's Application No., filing date, and Office, when known;

■ was filed on <u>January 9, 2017</u> and was given Application
No <u>62/444,355</u> by the following Office "<u>US</u>";

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	
15/630,761	June 22, 2017	US	
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			***************************************
		······	***************************************
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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"));

ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of the APPLICATION (and APPLICATION DERIVATIVES), for litigation regarding letters patent derived therefrom, and for the purpose of protecting and perfecting title to the APPLICATION (and APPLICATION DERIVATIVES).

Kurlan	January 17, 2017
Inventor's Signature	Date
Kim Henry Martin Laine	
Printed Name in English	Printed Name in Native Language
	(if other than English)

I <u>Hao Chen</u> ("ASSIGN(	OR") am the orig	ginal invent	or or an o	riginal joir	it inventor of
subject matter ("INVENTION	") disclosed and	d/or claime	d in a pate	ent applica	ation entitled
"String Matching on Encrypt	<u>ed Data</u> " ("APPL	ICATION"),	which:		

will	be	filed.	ASSIGNOR	hereby	autho	rizes, an	d reques	ts,
ASSI	GNE	E'S lega	l representa	itive, Mic	rosoft T	Technolog	y Licensir	ıg,
LLC.	, On	e Micros	oft Way, Red	imond, W	ashingt	on 98052	(ASSIGNEI	e'S
LEG/	AL R	EPRESE	NTATIVES),	to insert	here	in parent	heses (fil	ed
on_			and g	iven Appl	ication l	No		by
the	foll	owing	Office				) tl	his
APPI	JCA	ΓΙΟΝ's A	Application N	lo., filing	date, an	d Office, v	when know	vn;

was filed on <u>January 9, 2017</u> and was given Application No <u>62/444,355</u> by the following Office "<u>US</u>";

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Inventor's Signature

**Hao Chen** 

Printed Name in English

1 de

Date

Direct Manager to Man

Printed Name in Native Language

01/16/2017

(if other than English)

I <u>Gizem S. Cetin</u> ("ASSIGNOR") am th	e original	inventor or	an original j	oint inventor of
subject matter ("INVENTION") disclosed and/c	r claimed	in a patent	application	entitled "String
Matching on Encrypted Data" ("APPLICATION"	), which:			

will be filed. ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S
legal representative, Microsoft Technology Licensing, LLC., One
Microsoft Way, Redmond, Washington 98052 (ASSIGNEE'S LEGAL
REPRESENTATIVES), to insert here in parentheses (filed on
and given Application No by the
following Office
Application No., filing date, and Office, when known;

was filed on <u>January 9, 2017</u> and was given Application No <u>62/444,355</u> by the following Office "<u>US</u>";

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	
Application No. 15/630,761	Filing Date July 22, 2017	US	

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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Inventor's Signature

Gizem S. Cetin Printed Name in English Date 01/16/17

Printed Name in Native Language (if other than English)

Gizen S. Getin

D N	Docket	$N_{\alpha}$ .	400562	-US-PSP	)
$\sim$	Docket	INO.:	40030 <i>2</i> ·	-03-636	•

I <u>Yuhou Xia</u> ("ASSIGNOR") am the original inventor or an original joint inventor of ubject matter ("INVENTION") disclosed and/or claimed in a patent application entitled " <u>String atching on Encrypted Data"</u> ("APPLICATION"), which:
will be filed. ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S legal representative, Microsoft Technology Licensing, LLC., One Microsoft Way, Redmond, Washington 98052 (ASSIGNEE'S LEGAL REPRESENTATIVES), to insert here in parentheses (filed on and given Application No by the following Office ) this APPLICATION's Application No., filing date, and Office, when known;
was filed on <u>January 9, 2017</u> and was given Application No <u>62/444,355</u> by the following Office " <u>US</u> ";

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	
15/630,761	June 22, 2017	US	
<u> </u>			
	-		

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"));

ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of the APPLICATION (and APPLICATION DERIVATIVES), for litigation regarding letters patent derived therefrom, and for the purpose of protecting and perfecting title to the APPLICATION (and APPLICATION DERIVATIVES).

Inventor's Signature

Date

01/16/2017

Yuhou Xia

Printed Name in English

Printed Name in Native Language (if other than English)

I <u>Peter B. Rindal</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "<u>String Matching on Encrypted Data"</u> ("APPLICATION"), which:

	SIS.
ASSIGNEE'S legal representative, Microsoft Technology Licens	ing,
LLC., One Microsoft Way, Redmond, Washington 98052 (ASSIGN	
LEGAL REPRESENTATIVES), to Insert here in parentheses (	
onand given Application No the following Office	_ Dy this
APPLICATION's Application No., filing date, and Office, when kno	

was filed on <u>lanuary 9, 2017</u> and was given Application No <u>627444,355</u> by the following Office "<u>US</u>";

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
15/630,761	June 22, 2017	U5

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ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of the APPLICATION (and APPLICATION DERIVATIVES), for litigation regarding letters patent derived therefrom, and for the purpose of protecting and perfecting title to the APPLICATION (and APPLICATION DERIVATIVES).

Inventor's Signature

Date

Peter B. Rindal

Printed Name in English

Printed Name in Native Language (if other than English)

-26-2017

I Kristin Estella Lauter ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "String Matching on Encrypted Data" ("APPLICATION"), which:

will b	e filed.	ASSIGNO	R hereby	authori	zes, and	requests,
ASSIGN	VEE'S lega	l represent	ative, Mic	rosoft Te	chnology	Licensing,
LLC., C	ne Micros	oft Way, Re	dmond, W	ashingto	n 98052 (/	ASSIGNEE'S
LEGAL	REPRESE	NTATIVES),	to insert	here ir	parenth	eses (filed
on	***************************************	and g	jiven Appl	ication N	o	by
the fo	ollowing	Office				) this
APPLIC	ATION's A	pplication N	اo., filing ا	date, and	Office, wh	ien known;

was filed on <u>January 9, 2017</u> and was given Application No <u>62/444,355</u> by the following Office "<u>US</u>";

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"));

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15/630,761	June 22, 2017	US	

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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Mister Layter	1-17-2017
Inventor's Signature	Date
Kristin Estella Lauter	
Printed Name in English	Printed Name in Native Language
	(if other than English)