11/19/2015 503577712

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KIM LAINE	11/05/2015
NATHAN DOWLIN	11/05/2015
RAN GILAD-BACHRACH	11/05/2015
MICHAEL NAEHRIG	11/05/2015
JOHN WERNSING	11/05/2015
KRISTIN E. LAUTER	11/17/2015

RECEIVING PARTY DATA

Name:	Microsoft Technology Licensing, LLC	
Street Address:	One Microsoft Way	
City:	Redmond	
State/Country:	try: WA	
Postal Code:	98052	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14934039

CORRESPONDENCE DATA

Fax Number: (509)944-4692

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.

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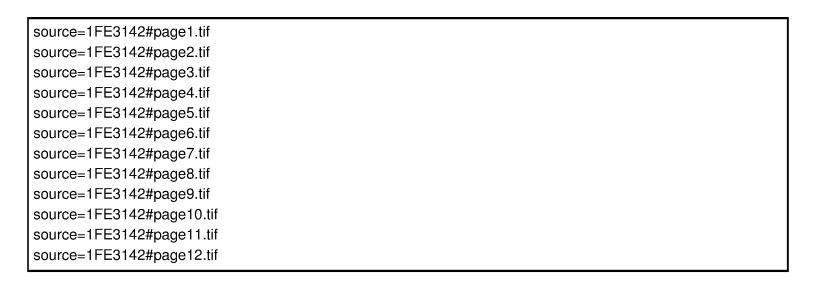
Address Line 1: 601 W. RIVERSIDE AVE, SUITE 1400 Address Line 4: SPOKANE, WASHINGTON 99201

ATTORNEY DOCKET NUMBER:	MS1-6368US
NAME OF SUBMITTER:	LYNNE MAHAN
SIGNATURE:	/Lynne Mahan/
DATE SIGNED:	11/19/2015
	•

Total Attachments: 12

PATENT REEL: 037147 FRAME: 0869

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PATENT REEL: 037147 FRAME: 0870

DATENIT AS	SIGNMENT	MS Docket No.:	358632 01
I CHELLY E CHU	Oldidiniti'i 4 1	Attorney Docket No.:	
l	Kim Laine	("ASSIGNOR") an	
_	l joint inventor of subject mat lication entitled	ter ("INVENTION") disclo	sed and/or claimed in
	Homomorphic Encryption with	n Optimized Parameter Selec	ction
("APPLICATIO	DN"), which:		
	will be filed. ASSIGNOR ASSIGNEE'S legal representa LLC., One Microsoft Way, Red LEGAL REPRESENTATIVES), on and githe following Office US - Unit this APPLICATION's Applicate known;	tive, Microsoft Techno Imond, Washington 980 to insert here in par iven Application No. ed States Patent and Tra	logy Licensing, 52 (ASSIGNEE'S entheses (filed by ademark Office)
	was filed onby the Patent and Trademark Office	following Office <u>US – Ur</u>	
behalf of itse of acquiring priority, in th	soft Technology Licensing, LL off and its successors and assign the entire and exclusive rigner of INVENTION and the APPLIC offrom, such as continuing ap	gns ("ASSIGNEE"), is entit hts, title and interest, ATION (and all other ap	tled to, and is desirous including the right of plications and patents

b p 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	· · · · · · · · · · · · · · · · · · ·	
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MS Docket No.: 358632.01

Attorney Docket No.: MS1-6368US

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"));

Jun Cum Inventor's Signature	11/5/2015 Date	
Kim Laine		
Printed Name in English	Printed Name in Native Language (if other than English)	

PATENT ASSIGNMENT MS Docket No.: 358632.01 Attorney Docket No.: MS1- 6368US Nathan Dowlin ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled Homomorphic Encryption with Optimized Parameter Selection ("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 <u>US - United States Patent and Trademark Office</u>) this APPLICATION's Application No., filing date, and Office, when known; was filed on _____ and was given Application No ______ by the following Office <u>US - United States</u> Patent and Trademark 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;

Filing Date Office Application No.

MS Docket No.: 358632.01

Attorney Docket No.: MS1-6368US

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Mus Dis	11/5/15	
Inventor's Signature	Date	
Nathan Dowlin		
Printed Name in English	Printed Name in Native Language (if other than English)	

PATENT ASSIGNMENT MS Docket No.: 358632.01 Attorney Docket No.: MS1- 6368US Ran Gilad-Bachrach ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled Homomorphic Encryption with Optimized Parameter Selection ("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 US - United States Patent and Trademark Office) this APPLICATION's Application No., filing date, and Office, when known; was filed on _____ and was given Application

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"));

No ______ by the following Office <u>US – United States</u>

Patent and Trademark Office;

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

MS Docket No.; 358632.01

Attorney Docket No.: MS1-6368US

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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).

Inventor's Signature Date

Ran Gilad-Bachrach

Printed Name in English

Printed Name in Native Language (if other than English)

MS Docket No.: 358632.01 PATENT ASSIGNMENT Attorney Docket No.: MS1- 6368US Michael Naehrig ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled Homomorphic Encryption with Optimized Parameter Selection ("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 <u>US - United States Patent and Trademark Office</u>) this APPLICATION's Application No., filing date, and Office, when known; was filed on _____ and was given Application No ______ by the following Office <u>US – United States</u> Patent and Trademark 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:

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MS Docket No.: 358632.01

Attorney Docket No.: MS1-6368US

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Moderal Naching	2015-11-05
Inventor's Signature	Date
Michael Naehrig	
Printed Name in English	Printed Name in Native Language (if other than English)

known;

MS Docket No.: 358632.01 PATENT ASSIGNMENT Attorney Docket No.: MS1- 6368US John Wernsing ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled Homomorphic Encryption with Optimized Parameter Selection ("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 <u>US - United States Patent and Trademark Office</u>) this APPLICATION's Application No., filing date, and Office, when

> was filed on _____ and was given Application No ______ by the following Office <u>US - United States</u> Patent and Trademark 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"));

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Office Filing Date Application No.

MS Docket No.: 358632.01

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Inventor's Signature John Wernsing	Date / S // S
Printed Name in English	Printed Name in Native Language
timica isame in ruguan	(if other than English)

PATENT ASSIGNMENT		MS Docket No.:	358632.01	
		Attorney Docket No.:	MS1- 6368US	
	Kristin E. Lauter	("ASSIGNOR") ar	n the original inventor	
or an origina	l joint inventor of subject mat	ter ("INVENTION") disclo	osed and/or claimed in	
a patent app	lication entitled			
	Homomorphic Encryption with	n Optimized Parameter Sele	ction	
("APPLICATIO	DN"), which:			
	will be filed. ASSIGNOR ASSIGNEE'S legal representa LLC., One Microsoft Way, Red LEGAL REPRESENTATIVES), on and gi the following Office US - Unit this APPLICATION's Applicat known;	tive, Microsoft Techno mond, Washington 980 to insert here in par iven Application No. ed States Patent and Tr	logy Licensing, 052 (ASSIGNEE'S entheses (filed by ademark Office)	
	was filed on Nov 5, 2015 No 14/934,039 by the Patent and Trademark Office	following Office <u>US – U</u>		
	soft Technology Licensing, LL		tled 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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Application No.	Filing Date	Office

PATENT.	ASSIGNMENT
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MS Docket No.: 358632.01
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Majstin & Leither	11-17-15
Inventor's Signature	Date
Kristin E. Lauter	
Printed Name in English	Printed Name in Native Language
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