

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5871367

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
ANDREY KARPOVSKY	03/17/2019
RON MATCHORO	03/17/2019
HAIM SAADIA BEN DANAN	12/17/2019
YOTAM LIVNY	03/17/2019
NAAMA KRAUS	03/17/2019
ROY LEVIN	03/17/2019
TAMER SALMAN	03/17/2019
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	MICROSOFT TECHNOLOGY LICENSING, LLC
<b>Street Address:</b>	ONE MICROSOFT WAY
<b>City:</b>	REDMOND
<b>State/Country:</b>	WASHINGTON
<b>Postal Code:</b>	98052
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16351962
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<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>	
<b>Phone:</b>	612-373-6900
<b>Email:</b>	usdocket@microsoft.com
<b>Correspondent Name:</b>	SCHWEGMAN LUNDBERG & WOESSNER, P.A.
<b>Address Line 1:</b>	P.O. BOX 2938
<b>Address Line 4:</b>	MINNEAPOLIS, MINNESOTA 55402
<b>ATTORNEY DOCKET NUMBER:</b>	405976-US-NP (1777.C46US1
<b>NAME OF SUBMITTER:</b>	ABBY JACKSON
<b>SIGNATURE:</b>	/Abby Jackson/
<b>DATE SIGNED:</b>	12/17/2019

**Total Attachments: 15**

source=1777.C46US1 Assignment-signed#page1.tif  
source=1777.C46US1 Assignment-signed#page2.tif  
source=1777.C46US1 Assignment-signed#page3.tif  
source=1777.C46US1 Assignment-signed#page4.tif  
source=1777.C46US1 Assignment-signed#page5.tif  
source=1777.C46US1 Assignment-signed#page6.tif  
source=1777.C46US1 Assignment-signed#page7.tif  
source=1777.C46US1 Assignment-signed#page8.tif  
source=1777.C46US1 Assignment-signed#page9.tif  
source=1777.C46US1 Assignment-signed#page10.tif  
source=1777.C46US1 Assignment-signed#page11.tif  
source=1777.C46US1 Assignment-signed#page12.tif  
source=1777.C46US1 Assignment-signed#page13.tif  
source=1777.C46US1 Assignment-signed#page14.tif  
source=1777.C46US1 Assignment-signed#page15.tif

RECORDATION FORM COVER SHEET  
PATENTS ONLY

Atty Ref/Docket No.: 405976-US-NP (1777.C46US1)

Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Andrey Karpovsky, Ron Matchoro, Haim Saadia Ben  
Danan, Yotam Livny, Naama Kraus, Roy Levin, Tamer  
Salman

Additional name(s) of conveying party(ies) attached?

☐ Yes ☒ No

3. Nature of conveyance:

☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other

Execution Date: March 17, 2019, March 17, 2019,  
December 17, 2019, March 17, 2019, March 17, 2019,  
March 17, 2019, March 17, 2019

2. Name and address of receiving party(ies):

Name: Microsoft Technology Licensing, LLC

Street Address: One Microsoft Way

City: Redmond State: WA Zip: 98052

Country: United States of America

Additional name(s) & address(es) attached? ☐ Yes  
☒ No

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. 16/351,962

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence  
concerning document should be mailed:

Name: Rigel J. Menard

Address:

Schwegman Lundberg & Woessner, P.A.  
P.O. Box 2938  
Minneapolis, Minnesota 55402

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41): \$ 0.00

☐ Enclosed

☐ Authorized to be charged to deposit account  
19-0743

8. Please charge any additional fees or credit any over  
payments to our Deposit Account No.: 19-0743

DO NOT USE THIS SPACE

9. 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.

Rigel J. Menard/Reg. No. 66,520  
Name of Person Signing

/Rigel J Menard/  
Signature

12/17/19  
Date

Total number of pages including cover sheet: 15

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  
Alexandria, VA 22313-1450

PATENT  
REEL: 051303 FRAME: 0649

I Andrey Karpovsky ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "CLOUD SECURITY USING MULTIDIMENSIONAL HIERARCHICAL MODEL", 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 March 13, 2019 and was given Application No 16/351,962 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

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).

	17/03/2019
_____ Inventor's Signature	_____ Date
Andrey Karpovsky	Андрей Карповский
_____ Printed Name in English	_____ Printed Name in Native Language (if other than English)

## PATENT ASSIGNMENT

MS Docket No.: 405976-US-NP

I Ron Matchoro ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "CLOUD SECURITY USING MULTIDIMENSIONAL HIERARCHICAL MODEL", 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 March 13, 2019 and was given Application No 16/351,962 by the following Office "US Patent Office";

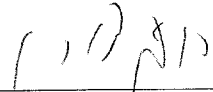
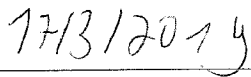
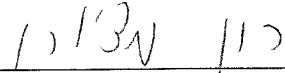
Microsoft Technology Licensing, LLC, a Washington limited liability company, on behalf of itself and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous of acquiring, the entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (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

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
Ron Matchoro	
Printed Name in English	Printed Name in Native Language (if other than English)

I Haim Saadia Ben Danan ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "CLOUD SECURITY USING MULTIDIMENSIONAL HIERARCHICAL MODEL", 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 March 13, 2019 and was given Application No 16/351,962 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"));

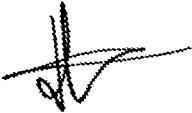
ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S LEGAL REPRESENTATIVES to insert the Application No., filing date, and Office into the following table for any APPLICATION DERIVATIVES after they are known;

Application No.	Filing Date	Office



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).

	12 / 17 / 2019
_____ Inventor's Signature	_____ Date
Haim Saadia Ben Danan	הנדן בן הודעס סידח
_____ Printed Name in English	_____ Printed Name in Native Language (if other than English)

I Yotam Livny ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "CLOUD SECURITY USING MULTIDIMENSIONAL HIERARCHICAL MODEL", 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 March 13, 2019 and was given Application No 16/351,962 by the following Office "US Patent Office";

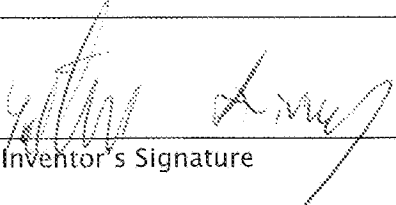
Microsoft Technology Licensing, LLC, a Washington limited liability company, on behalf of itself and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous of acquiring, the entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (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

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	<u>Nov 17 2019</u> Date
Yotam Livny Printed Name in English	<u>יוטם ליבני</u> Printed Name in Native Language (if other than English)

I Naama Kraus ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "CLOUD SECURITY USING MULTIDIMENSIONAL HIERARCHICAL MODEL", 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 March 13, 2019 and was given Application No 16/351,962 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

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).

<u>נעמה קראוס</u>	<u>17 March 2019</u>
Inventor's Signature	Date
<u>Naama Kraus</u>	<u>נעמה קראוס</u>
Printed Name in English	Printed Name in Native Language (if other than English)

I Roy Levin ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "CLOUD SECURITY USING MULTIDIMENSIONAL HIERARCHICAL MODEL", 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 March 13, 2019 and was given Application No 16/351,962 by the following Office "US Patent Office";

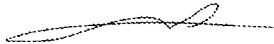
Microsoft Technology Licensing, LLC, a Washington limited liability company, on behalf of itself and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous of acquiring, the entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (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

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).

	17 March 2019
_____ Inventor's Signature	_____ Date
Roy Levin	רועי לוין
_____ Printed Name in English	_____ Printed Name in Native Language (if other than English)

I Tamer Salman ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "CLOUD SECURITY USING MULTIDIMENSIONAL HIERARCHICAL MODEL", 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 March 13, 2019 and was given Application No 16/351,962 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



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).

	17 March 2019
_____ Inventor's Signature	_____ Date
Tamer Salman	تامر سلمان
_____ Printed Name in English	_____ Printed Name in Native Language (if other than English)