

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5356887

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
SHACHAR RAINDEL	01/30/2019
JITENDRA D. PADHYE	02/01/2019
AVI WILLIAM LEVY	01/23/2019
MAHMOUD S. EL HADDAD	01/24/2019
ALIREZA KHOSGOFTAR MONAFARED	02/01/2019
BRIAN D. ZILL	01/24/2019
BEHNAZ ARZANI	01/23/2019
XINCHEN GUO	01/28/2019
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:	16265853
CORRESPONDENCE DATA	
Fax Number:	
<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>	
Email:	usdocket@microsoft.com
Correspondent Name:	NEWPORT IP, LLC
Address Line 1:	1400 112TH AVE SE, SUITE 100
Address Line 4:	BELLEVUE, WASHINGTON 98004
ATTORNEY DOCKET NUMBER:	MS1-9263US
NAME OF SUBMITTER:	PAOLA SEVERICH
SIGNATURE:	/Paola Severich/
DATE SIGNED:	02/01/2019

Total Attachments: 16

source=Assignment#page1.tif
source=Assignment#page2.tif
source=Assignment#page3.tif
source=Assignment#page4.tif
source=Assignment#page5.tif
source=Assignment#page6.tif
source=Assignment#page7.tif
source=Assignment#page8.tif
source=Assignment#page9.tif
source=Assignment#page10.tif
source=Assignment#page11.tif
source=Assignment#page12.tif
source=Assignment#page13.tif
source=Assignment#page14.tif
source=Assignment#page15.tif
source=Assignment#page16.tif

PATENT ASSIGNMENT

Client Docket No.: 405183-US-NP
Attorney Docket No.: MS1-9263US

I **Shachar RAINDEL** ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "**LINK FAULT ISOLATION USING LATENCIES**" ("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 No. ____ by the following Office "**US – United States 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;

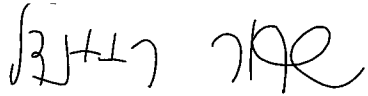
Application No.	Filing Date	Office

PATENT ASSIGNMENT

Client Docket No.: 405183-US-NP
Attorney Docket No.: MS1-9263US

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).

	1/30/2019
_____ Inventor's Signature	_____ Date
Shachar RAINDEL	
_____ Printed Name in English	_____ Printed Name in Native Language (if other than English)

PATENT ASSIGNMENT

Client Docket No.: 405183-US-NP
Attorney Docket No.: MS1-9263US

I **Jitendra D. PADHYE** ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "**LINK FAULT ISOLATION USING LATENCIES**" ("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 No. ____ by the following Office "**US – United States 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;


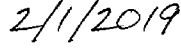
Application No.	Filing Date	Office

PATENT ASSIGNMENT

Client Docket No.: 405183-US-NP
Attorney Docket No.: MS1-9263US

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
Jitendra D. PADHYE	_____
_____ Printed Name in English	_____ Printed Name in Native Language (if other than English)

PATENT ASSIGNMENT

Client Docket No.: 405183-US-NP
Attorney Docket No.: MS1-9263US

I **Avi William LEVY** ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "**LINK FAULT ISOLATION USING LATENCIES**" ("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 No. ____ by the following Office "US – United States 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;


Application No.	Filing Date	Office

PATENT ASSIGNMENT

Client Docket No.: 405183-US-NP
Attorney Docket No.: MS1-9263US

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).

	<i>1/23/19</i>
_____ Inventor's Signature	_____ Date
Avi William LEVY	
_____ Printed Name in English	_____ Printed Name in Native Language (if other than English)

PATENT ASSIGNMENT

Client Docket No.: 405183-US-NP
Attorney Docket No.: MS1-9263US

I **Mahmoud S. EL HADDAD** ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "**LINK FAULT ISOLATION USING LATENCIES**" ("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 No. ____ by the following Office "**US – United States 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;



Application No.	Filing Date	Office

PATENT ASSIGNMENT

Client Docket No.: 405183-US-NP
Attorney Docket No.: MS1-9263US

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
Mahmoud S. EL HADDAD Printed Name in English	 Printed Name in Native Language (if other than English)

PATENT ASSIGNMENT

Client Docket No.: 405183-US-NP
Attorney Docket No.: MS1-9263US

I Alireza KHOSGOFTAR MONAFARED ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "LINK FAULT ISOLATION USING LATENCIES" ("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 No. ____ by the following Office "US - United States 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;

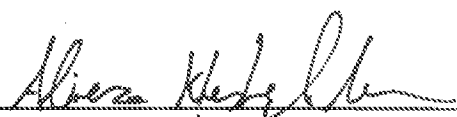
Application No.	Filing Date	Office

PATENT ASSIGNMENT

Client Docket No.: 405183-US-NP
Attorney Docket No.: MSI-9263US

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>02, 01, 2019</u> Date
Alireza KHOSGOFTAR MONAFARED Printed Name in English	<u>علیرضا خوش گفتار منفرد</u> Printed Name in Native Language (if other than English)

PATENT ASSIGNMENT

Client Docket No.: 405183-US-NP
Attorney Docket No.: MSI-9263US

I Brian D. ZILL ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "LINK FAULT ISOLATION USING LATENCIES" ("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 No. _____ by the following Office "US - United States 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;


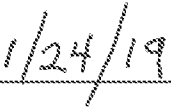
Application No.	Filing Date	Office

PATENT ASSIGNMENT

Client Docket No.: 405183-US-NP
Attorney Docket No.: MS1-9263US

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
Brian D. ZILL Printed Name in English	 Printed Name in Native Language (if other than English)

PATENT ASSIGNMENT

Client Docket No.: 405183-US-NP
Attorney Docket No.: MS1-9263US

I **Behnaz ARZANI** ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "**LINK FAULT ISOLATION USING LATENCIES**" ("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 No. ____ by the following Office "**US – United States 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;

Application No.	Filing Date	Office

PATENT ASSIGNMENT

Client Docket No.: 4051
Attorney Docket No.: MS11

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, the ASSIGNOR's entire and exclusive rights, title and interest, including the right to make, use, sell, offer for sale, import, export, and otherwise dispose of the INVENTION in the INVENTION and the APPLICATION (and all other applications and patents 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) and litigation regarding letters patent derived therefrom, and for the purpose of perfecting title to the APPLICATION (and APPLICATION DERIVATIVES).

Inventor's Signature Behnaz Arzani Date 01/23/2019

Behnaz ARZANI
Printed Name in English
Printed Name in Native Language
(if other than English)

PATENT ASSIGNMENT

Client Docket No.: 405183-US-NP
Attorney Docket No.: MSI-9263US

I Xinchen GUO ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "LINK FAULT ISOLATION USING LATENCIES" ("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 No. _____ by the following Office "US - United States 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;

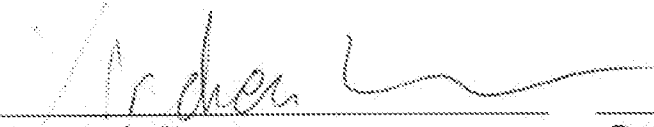
Application No.	Filing Date	Office

PATENT ASSIGNMENT

Client Docket No.: 405183-US-NP
Attorney Docket No.: MS1-9263US

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).

	01/28/2019
Inventor's Signature	Date
Xinchen GUO	
Printed Name in English	Printed Name in Native Language (if other than English)