505810991 12/09/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5857820

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
GOWRI BHASKARA	12/05/2019
WEI ZOU	12/06/2019
BRENT MICHAEL JENSEN	12/06/2019
AHMED RAGAB NABHAN MOSTAFA	12/06/2019
BHAUMIK CHOKSHI	12/06/2019
ZAINAB HAKIM	12/06/2019
SHANTI KEMBURU	12/06/2019
NING LIU	12/06/2019
BENJAMIN WALTER MARTENS	12/05/2019
NICHOLAS ANTHONY SWANSON	12/06/2019

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:	16707897

CORRESPONDENCE DATA

Fax Number: (801)532-7543

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 2: **SUITE 1400**

Address Line 4: SALT LAKE CITY, UTAH 84111

ATTORNEY DOCKET NUMBER: 407863-US-NP

PAIENI REEL: 051221 FRAME: 0421 505810991

NAME OF SUBMITTER:	TIFFANY B. HEALY
SIGNATURE:	/Tiffany B. Healy, Reg.# 57912/
DATE SIGNED:	12/09/2019

Total Attachments: 20

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> PATENT REEL: 051221 FRAME: 0422

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I Gowri BHASKARA ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "PROVIDING ALTERNATE RESOURCE DEPLOYMENT GUIDANCE FOR USE WITH CLOUD SERVICES" ("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 December 9, 2019 and given

> No. 16/707.897 by the following Office US - United States Patent and Trademark Office) this APPLICATION's Application No.,

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filing date, and Office, when known;

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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Page 1 of 2

MS Docket No.: 407863-US-NP

Application

PATEN	ASSIGNMENT	MS Docket No.:	<u>407863-US-NP</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")):

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	<u> 7 செச்சி கொல்ல</u> Inventor's Signature	Date
	Gowri BHASKARA	
	Printed Name in English	Printed Name in Native Language
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Page 1 of 2

PATENT.	ASSIGNMENT	MS Docket No.:	***************************************

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).

Printed Name in English

| Date | Date | Dev Service | Dev

MS Docket No.: 407863-US-NP I Ahmed Ragab Nabhan MOSTAFA ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "PROVIDING ALTERNATE RESOURCE DEPLOYMENT GUIDANCE FOR USE WITH CLOUD SERVICES" ("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 December 9, 2019 and given Application on No. 16/707,897 by the following Office US - United States Patent and Trademark Office) this APPLICATION's Application No., filing date, and Office, when known;

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authorizes, requests. ASSIGNEE'S LEGAL ASSIGNOR hereby and 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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Page 1 of 2

PATENT	ASSIGNMENT	MS Docket No.:	407863-US-NP

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Inventor's Signature	Date	N _v
Ahmed Ragab Nabhan MOSTAFA		
Printed Name in English	Printed Name in Native Lar	iguage
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✓ 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 December 9, 2019 and given Application No. 16/707,897 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	
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Page 1 of 2

PATEN	ASSIGNMENT	MS Docket No.:	407863-US-NP

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	Patent and Trademai	<u>rk Office</u>) this APPI	LICATION's A	pplicatio	n No.,
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Page 1 of 2

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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"));

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Zainab HAKIM	
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I Shanti KEMBURU ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "PROVIDING ALTERNATE RESOURCE DEPLOYMENT GUIDANCE FOR USE WITH CLOUD SERVICES" ("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 December 6, 2019 on and given Application No. <u>16/707,897</u> by the following Office <u>US - United States</u> 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 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 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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Inventor's Signature	12/6/2019 Date
Shanti KEMBURU	
Printed Name in English	Printed Name in Native Language
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l <u>Nin</u> g	L <u>LIU</u> ("ASSIGNOR")	am the original inve	entor or an original	joint inventor of subject
matter ("INV	ENTION") disclose	d and/or claimed in	n a patent applicat	tion entitled "PROVIDING
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("APPLICATIO	DN"), which:			
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Printed Name in English	Printed Name in Native Language
	(if other than English)

i Benj	amin Walter MAK	<u>[ENS ("ASSIGNOR") am the</u>	original inventor or an original j	oint
inventor of	subject matter (*)	NVENTION") disclosed an	d/or claimed in a patent applica	tion
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Micros	soft Technology Li	censing, LLC, a Washingto	n limited liability company, on	
			GNEE"), is entitled to, and is	
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Paul Value Nactions	12/5/2019
Inventor's Signature	Date ' /
Benjamin Walter MARTENS	
Printed Name in English	Printed Name in Native Language
	(if other than English)

MS Docket No.: 407863-US-NP

I <u>Nicholas Anthony SWANSON</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "PROVIDING ALTERNATE RESOURCE DEPLOYMENT GUIDANCE FOR USE WITH CLOUD SERVICES" ("APPLICATION"), which:

\boxtimes	will be filed.	ASSIGNOR	hereby	authoriz	es, and	requests,
	ASSIGNEE'S legal	representa	tive, Mici	osoft Te	chnology	Licensing,
	LLC, One Microso	ft Way, Redi	mond, Wa	ashington	98052 (ASSIGNEE'S
	LEGAL REPRESEN	TATIVES), t	o insert	here in	parenth	eses (filed
	on <u>Decembe</u>	er 9, 2019	and	giv	en ,	Application
	No. <u>16/707,897</u>	by the	following	g Office	<mark>US – Un</mark>	ited States
	Patent and Trade	mark Office) this AP	PLICATIO	V's Appli	cation No.,
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2~~~	12-6-2019
Inventor's Signature	Date
Nicholas Anthony SWANSON	
Printed Name in English	Printed Name in Native Language (if other than English)

RECORDED: 12/09/2019