PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5000614

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JIE LIU	04/29/2015
BRIAN JANOUS	04/23/2015
GREGORY JOSEPH MCKNIGHT	04/22/2015
SEAN JAMES	04/23/2015
RICARDO BIANCHINI	04/27/2015

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:	15919005

CORRESPONDENCE DATA

Fax Number: (509)381-3110

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: 425-707-9382

Email: usdocket@microsoft.com

Correspondent Name: MICROSOFT CORPORATION

Address Line 1: ONE MICROSOFT WAY

Address Line 4: REDMOND, WASHINGTON 98052

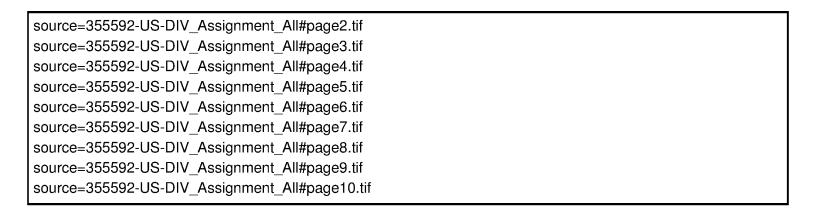
ATTORNEY DOCKET NUMBER:	355592-US-DIV
NAME OF SUBMITTER:	ALEX LEA
SIGNATURE:	/alex lea/
DATE SIGNED:	06/11/2018

Total Attachments: 10

source=355592-US-DIV_Assignment_All#page1.tif

PATENT REEL: 046044 FRAME: 0628

504953867



PATENT REEL: 046044 FRAME: 0629

I <u>lie Liu</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "GRID ENERGY ROUTING" ("APPLICATION"), which:

MS Docket No.: 355592.01

will	be	filed.	ASSIGN	OR her	eby a	uthoriz	es, a	nd rec	luests,
ASSI	GNE	E'S lega	l represen	tative of	f Micro	soft Te	chnolc	ıgy Lice	ensing,
LLC,	One	: Micros	oft Way, R	edmono	1, Wasl	nington	9805	2 (ASSIG	GNEE'S
LEG/	al R	EPRESEI	NTATIVES),	to inse	ert her	e in pa	irenth	eses (fi	led on
and	give	n Appli	cation No.	***************************************		by	the fo	llowing	Office
<u>US</u>		<u>United</u>	States	<u>Patent</u>	<u>and</u>	<u> Trader</u>	<u>nark</u>	_Office	this
APPI	.ICA	TION's	Application	n No.,	filing	date,	and	Office,	when
knov	vn;								

was filed on <u>July 11, 2014</u> and was given Application No <u>62/023,782</u> by the following Office "<u>The United States Patent and</u> 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
14/675,030	March 31, 2015	The United States Patent
		and Trademark Office
15/919,005	March 12, 2018	USPTO

PATENT ASSIGNMENT

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"));

	4/29/2015
Inventor's Signature	Date
jie Liu	沙沙
Printed Name in English	Printed Name in Native Language
	(if other than English)

	I <u>Bri</u> a	<u>an Janoι</u>	<u>ıs</u> ("ASSIGNOR")	am the ori	iginal inv	entor or	an	ori	ginal jo	int invent	or
of	subject	matter	("INVENTION")	disclosed	and/or	claimed	in	a	patent	applicati	on
en	titled "G	RID EN	ERGY ROUTIN	NG" ("APPLI	CATION'	"), which:					

MS Docket No.: 355592.01

will	be	filed.	ASSIGN	IOR h	ereby	authori	zes,	and re	quests,
ASSI	GNE	E'S lega	l represer	ntative	of Mic	osoft T	echno	logy Lic	ensing,
LLC,	One	Micros	oft Way,	Redmo	nd, Wa	shingto	1 980	52 (ASSI	GNEE'S
LEGA	AL R	EPRESE	NTATIVES), to ir	isert h	ere in p	arenth	neses (f	iled on
and	give	n Appli	cation No	•		by	the f	ollowing) Office
<u>US</u>	_	<u>United</u>	States	Paten	<u>t and</u>	Trade	mark	Office	this
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Page 1 of 2

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B 2	
	4/23/15
Inventor's Signature	Date
Brian Janous	
Printed Name in English	Printed Name in Native Language
_	(if other than English)

Trademark Office";

I <u>Gregory Joseph McKnight</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "GRID ENERGY ROUTING" ("APPLICATION"), which:
will be filed. ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S legal representative of 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 July 11, 2014 and was given Application No

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;

Tollowing table for any Affication Derivatives after they are known,				
Application No.	Filing Date	Office		
14/675,030	March 31, 2015	The United States Patent		
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Page 1 of 2

MS Docket No.: 355592.01

PATENT ASSIGNMENT

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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

Gregory Joseph McKnight

Printed Name in English

Printed Name in Native Language (if other than English)

I <u>Sean James</u> ("ASSIGNOR") am the original inventor or an original joint invento
of subject matter ("INVENTION") disclosed and/or claimed in a patent application
entitled "GRID ENERGY ROUTING" ("APPLICATION"), which:

MS Docket No.: 355592.01

will	be	filed.	ASSIGN	IOR h	ereby	authoriz	es, a	and red	quests,
ASSI	GNE	E'S lega	l represei	ntative	of Mic	rosoft Te	chnol	logy Lice	ensing,
LLC,	One	Micros	oft Way,	Redmo	ond, Wa	shington	9805	52 (ASSI	GNEE'S
LEGA	AL R	EPRESE	NTATIVES), to i	nsert h	ere in pa	arenth	neses (fi	led on
and	give	n Appli	cation No	•		by	the fo	ollowing	Office
<u>US</u>	_	<u>United</u>	States	Paten	t and	Trade	<u>mark</u>	Office) this
APPL	_ICA	TION's	Applicati	on No	o., filir	g date,	and	Office,	when
knov	wn;								

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March 12, 2018	USPTO
	March 31, 2015

Page 1 of 2

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	April 23, 2015
Inventor's Signature	Date
Sean James	
Printed Name in English	Printed Name in Native Language
	(if other than English)

PATENT ASSIGNMENT MS Docket No.: 355592.01

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inventor of subje	<u>ianchini</u> ("ASSIGNOR") am ect matter ("INVENTION") d "GRID ENERGY ROUT	disclosed and	d/or claimed in	
ASSIC LLC, LEGA on No. <u>Pater</u>	be filed. ASSIGNOR GNEE'S legal representative One Microsoft Way, Redm AL REPRESENTATIVES), to by the foot and Trademark Office) I date, and Office, when kr	e of Microsoft Tond, Washington insert here in and girollowing Office this APPLICATION	echnology Licensi n 98052 (ASSIGNE n parentheses (fi ven Applicat <u>US – United Sta</u>	ng, EE'S iled iion ites
<u>62/0</u>	filed on <u>July 11, 2014</u> and 1 <u>23,782</u> by the following O emark Office":			ıd
behalf of itself a desirous of acquir right of priority, ir	echnology Licensing, LLC, nd its successors and as ring, the entire and exclusion the INVENTION and the Appetronments continuing	signs ("ASSIGN sive rights, title PPLICATION (an	EE"), is entitled to and interest, inc and all other applica	to, and is luding the ations and

on 15 the 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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Rimala Biandini	4/27/15
Inventor's Signature	Date
Ricardo Bianchini	
Printed Name in English	Printed Name in Native Language
	(if other than English)