505200018 11/20/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
IGOR OSTROVSKY	06/15/2011
JOSEPH E. HOAG	06/15/2011
STEPHEN H. TOUB	06/19/2011
MIKE LIDDELL	06/16/2011

RECEIVING PARTY DATA

Name:	MICROSOFT CORPORATION
Street Address:	ONE MICROSOFT WAY
City:	REDMOND
State/Country:	WASHINGTON
Postal Code:	98052

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16196757

CORRESPONDENCE DATA

Fax Number: (612)573-2005

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 MICROSOFT CORPORATION **Correspondent Name:** Address Line 1: ONE MICROSOFT WAY

Address Line 4: **REDMOND, WASHINGTON 98052**

ATTORNEY DOCKET NUMBER: 332736-US-CNT[2] NAME OF SUBMITTER: PATRICK G. BILLIG **SIGNATURE:** /Patrick G. Billig/ **DATE SIGNED:** 11/20/2018

Total Attachments: 6

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PATENT REEL: 047556 FRAME: 0248 505200018

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> PATENT REEL: 047556 FRAME: 0249

PATENT ASSIGNMENT	MS Docket No.:	332736.01
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I/WE, Igor Ostrovsky, Joseph E. Hoag, Stephen H. Toub, and Mike Liddell ("ASSIGNOR"), have invented subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled " DYNAMICALLY ALLOCATED THREAD-LOCAL STORAGE", which:

X	will be filed without this executed PATENT ASSIGNMENT. ASSIGNOR
	hereby authorizes, and requests, ASSIGNEE'S legal representatives, of
	the Law and Corporate Affairs Department, Microsoft Corporation, One
	Microsoft Way, Redmond, Washington 98052, who are associated with
	customer number 69316, to insert here in parenthesis (Application No
	13/165,421, filed time 21, 201 this APPLICATION's Application No. and
	filing date, when known;
	was filed on;
П	is filed concurrently herewith:

Microsoft Corporation, a Washington Corporation, 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 in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

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 entire and exclusive rights, title and interest in the INVENTION and the APPLICATION (and 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	(6/15/201) Date
lgor Ostrovsky Printed Name in English	Printed Name in Native Language (if other than English)

PATENT ASSIGNMENT

Jory 1 E, 1 D	C(15/2011 Date
Joseph E. Hoag	- Drinted Name in Native Language (if
Printed Name in English	Printed Name in Native Language (if other than English)
Inventor's Signature	Date
Stephen H. Toub	
Printed Name in English	Printed Name in Native Language (if other than English)
Inventor's Signature	Date .
Mike Liddell	
Printed Name in English	Printed Name in Native Language (if

other than English)

MS Docket No.: <u>332736.01</u>

M\$	Doc	ket	No.:	33	2736.01

I/WE, Igor Ostrovsky, Joseph E. Hoag, Stephen H. Toub, and Mike Liddell ("ASSIGNOR"), have invented subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled " DYNAMICALLY ALLOCATED THREAD-LOCAL STORAGE", which:

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	customer number 69316, to insert here in parenthesis (Application No. $\frac{13/165,421}{}$, filed this APPLICATION's Application No. and
	filing date, when known;
	was filed on and was given Application No;
	is filed concurrently herewith;

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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	Date
Igor Ostrovsky	
Printed Name in English	Printed Name in Native Language (if other than English)

PATENT REEL: 047556 FRAME: 0252

Date Printed Name in Native Language (if
Printed Name in Native Language (if
Printed Name in Native Language (if
other than English)
6/19/2011
Date
Printed Name in Native Language (if other than English)

Page 2 of 2 **PATENT REEL: 047556 FRAME: 0253**

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PATENT ASSIGNM	ICIVI

PATENT ASSIGNM	ENT	MS Docket No.:	332736.01
I/WE, Igor Ostrovsky, Joseph E. Ho ("ASSIGNOR"), have invented subject matter a patent application entitled " DYNAMICALL which: will be filed without this experience of the Law and Corporate Affair Microsoft Way, Redmond, Was customer number 69316, to 13/165,421, filed 121, 201.	ag, Stephen H. "INVENTION") di ALLOCATED T ecuted PATENT ests, ASSIGNEE' s Department, M shington 98052	Toub, and Mike isclosed and/or classicated and/or classicated and/or classicated and/or classicated arenthesis (Applicated arenthesis (Ap	E Liddell aimed in ORAGE", SSIGNOR atives, of ion, One ated with ation No.
filing date, when known;	this APPLICATI	ION'S Application	No. and
was filed on and	was given Annli	ication No.	•
is filed concurrently herewith			**************************************
Microsoft Corporation, a Washington successors and assigns ("ASSIGNEE"), is entended and exclusive rights, title and interest (and all other applications and patents applications, in and for the United States, ("APPLICATION DERIVATIVES")); For good and valuable consideral acknowledged by the ASSIGNOR, the ASSIGNEE, the entire and exclusive right the APPLICATION (and APPLICATION DERIVATION DERIVATION agrees to execute all instemaking and prosecution of the APPLICATION litigation regarding letters patent derived the and perfecting title to the APPLICATION (and	itled to, and is t in the INVENT derived thereform, the received the self-tion, the received the self-tion, the and interives); ruments and deferefrom, and for the self-tion of	desirous of acquirence of acquirence of which is assigns and transcript of the INVENT ocuments required CATION DERIVATION The purpose of p	ring, the LICATION Intinuing Countries hereby Insfers to ITON and If for the VES), for
Inventor's Signature	Date		·
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Inventor's Signature	Date
Stephen H. Toub	
Printed Name in English	Printed Name in Native Language (if other than English)
Invertor's Signature	
Mike Liddell	
Printed Name in English	Printed Name in Native Language (if other than English)