502444277 08/02/2013

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Nicole Allen	06/14/2013
Zhipeng Zhao	06/12/2013
Zhengwen Zhu	06/11/2013
Bradley Hughes	06/11/2013
Dionicio Avila	06/14/2013
Shawn McGrath	06/11/2013
Jason Nelson	06/14/2013
John Tait	06/17/2013
Aaron Whitney	06/17/2013

RECEIVING PARTY DATA

Name:	Microsoft Corporation
Street Address:	One Microsoft Way
Internal Address:	Attn: LCA
City:	Redmond
State/Country:	WASHINGTON
Postal Code:	98052

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13923895

CORRESPONDENCE DATA

Fax Number: 2063426201

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 206.342.6243

Email: mcrosslin@merchantgould.com

Correspondent Name: Merchant & Gould (Microsoft Corporation)

Address Line 1: P.O. Box 2903

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REEL: 030932 FRAME: 0418

OP \$40.00 13923895

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Address Line 4: Minneapolis, M	IINNESOTA 55402
ATTORNEY DOCKET NUMBER:	14917.2327US01
NAME OF SUBMITTER:	Michelle Crosslin
Signature:	/Michelle Crosslin/
Date:	08/02/2013
Total Attachments: 18 source=2013-08-02_Assignments-ALL_149	17-2327us01#page2.tif 17-2327us01#page3.tif 17-2327us01#page4.tif 17-2327us01#page5.tif 17-2327us01#page6.tif 17-2327us01#page7.tif 17-2327us01#page8.tif 17-2327us01#page9.tif 17-2327us01#page10.tif 17-2327us01#page11.tif 17-2327us01#page12.tif 17-2327us01#page15.tif 17-2327us01#page15.tif 17-2327us01#page15.tif 17-2327us01#page16.tif 17-2327us01#page16.tif

PATENT ASSIGNMENT

I <u>NICOLE ALLEN</u> ("ASSIC	GNOR") am the original	inventor or an original joint
inventor of subject matter ("INVENTION") disclosed	and/or claimed in a patent
application entitled "USING DIF	FERENT CONNECTIVITY C	HECKS TO DETERMINE CAUSES
OF CONNECTIVITY ISSUES" ("API	PLICATION"), which:	
oxtimes will be filed.	ASSIGNOR hereby auth	orizes, and requests,
ASSIGNEE'S legal ı	representatives, of the Lav	v and Corporate Affairs
Department, Micro	osoft Corporation, One Mi	crosoft Way, Redmond,
Washington 9805	2 (ASSIGNEE'S LEGAL REPR	ESENTATIVES), to insert
here in parenth	eses (filed on	and given
Application No	by the follo	wing Office <u>US – United</u>
	and Trademark Office)	
Application No., fi	ling date, and Office, whe	n known;
<u> </u>		
was filed on	and was given Ap	oplication No by
the following Offic	ce " <u>United States Patent ar</u>	id Trademark Office";
Microsoft Corporation, a successors and assigns ("ASSIC entire and exclusive rights, titl (and all other applications a applications, in and for the L ("APPLICATION DERIVATIVES"));	ONEE"), is entitled to, and e and interest in the INV and patents derived the	ENTION and the APPLICATION refrom, such as continuing
ASSIGNOR hereby	authorizes, and regu	uests, ASSIGNEE'S LEGAL
REPRESENTATIVES to insert the		
following table for any APPLICA		
Application No.	Filing Date	Office

Corporate Affairs [(ASSIGNEE'S LEGAL Application No.	Department, Microsoft REPRESENTATIVES), to in by the fo	Comporation, One Microsonsert here in parentheses (f	S legal representatives, of the Law and ft Way, Redmond, Washington 98052 iled on and given States Patent and Trademark Office) this
<u>was</u> filed on and Trademark Offi	and was given Ace":	Application No by the	e following Office " <u>United States Patent</u>
to and is desirous of acquiring.	the entire and exclusive crived therefrom, such a	e riahts, title and interest in	successors and assigns ("ASSIGNEE"), is entitled the INVENTION and the APPLICATION (and all and for the United States, its territories, and all
ASSIGNOR hereby authoriz Office into the following table for	es, and requests, ASSIG	NEE'S LEGAL REPRESENTATI	VES to insert the Application No., filing date, and
Application No.	Filing Date	Office	<u></u>
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sells, assigns and transfers to the APPLICATION (and APPLICATION)	he ASSIGNEE, ASSIGNOR DERIVATIVES);	is entire and exclusive righ	edged by the ASSIGNOR, the ASSIGNOR hereby ts, title and interest in the INVENTION and the
ASSIGNOR agrees to execute (and APPLICATION DERIVATIVES) perfecting title to the APPLICATION	, for litigation regarding	g letters patent derived the	e making and prosecution of the APPLICATION refrom, and for the purpose of protecting and
Nel ar	6/14/2	2013	_
Inventor's Signature	Date		
NICOLE ALLEN Printed Name in English	Printed Na	me in Native Language	_

PATENT ASSIGNMENT

I <u>ZHIPENG ZHAO</u> ("ASSI- inventor of subject matter (application entitled " <u>USING DIF</u> <u>OF CONNECTIVITY ISSUES</u> " ("API	"INVENTION") disclosed a FERENT CONNECTIVITY CH	
ASSIGNEE'S legal of Department, Microwashington 9805 here in parenth Application No	ASSIGNOR hereby authorepresentatives, of the Lavosoft Corporation, One Mi (ASSIGNEE'S LEGAL REPReses (filed on by the followand Trademark Office)	v and Corporate Affairs crosoft Way, Redmond, ESENTATIVES), to insert and given wing Office <u>US – United</u> this APPLICATION's
	and was given Ap	
Microsoft Corporation, successors and assigns ("ASSIG entire and exclusive rights, tit (and all other applications applications, in and for the U"APPLICATION DERIVATIVES"));	GNEE"), is entitled to, and le and interest in the INV and patents derived the	ENTION and the APPLICATION refrom, such as continuing
ASSIGNOR hereby REPRESENTATIVES to insert t following table for any APPLICA	he Application No., filin	
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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 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

Date

ZHIPENG ZHAO

Printed Name in English

Printed Name in Native Language

(if other than English)

PATENT ASSIGNMENT

I <u>ZHENGWEN ZHU</u> ("ASS inventor of subject matter ("application entitled " <u>USING DIF</u> <u>OF CONNECTIVITY ISSUES</u> " ("APP	'INVENTION") disclosed a FERENT CONNECTIVITY CH	
ASSIGNEE'S legal of Department, Micro Washington 9805 here in parenth Application No	ASSIGNOR hereby authorepresentatives, of the Law osoft Corporation, One Mic (ASSIGNEE'S LEGAL REPRESES (filed on by the followand Trademark Office)	v and Corporate Affairs crosoft Way, Redmond, ESENTATIVES), to insert and given wing Office <u>US – United</u> this APPLICATION's
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Microsoft Corporation, successors and assigns ("ASSIGN entire and exclusive rights, tith (and all other applications applications, in and for the United Company ("APPLICATION DERIVATIVES"));	GNEE"), is entitled to, and le and interest in the INV and patents derived the	ENTION and the APPLICATION refrom, such as continuing
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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 in the INVENTION and the APPLICATION (and APPLICATION DERIVATIVES);

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PATENT ASSIGNMENT

I <u>BRADLEY HUGHES</u> ("AS inventor of subject matter ('application entitled " <u>USING DIFIOR CONNECTIVITY ISSUES</u> " ("APF	'INVENTION") disclosed a ERENT CONNECTIVITY CH	
ASSIGNEE'S legal repartment, Micro Washington 98052 here in parenthe Application No	ASSIGNOR hereby authorepresentatives, of the Lavosoft Corporation, One Mi (2 (ASSIGNEE'S LEGAL REPReses (filed on by the following date, and Office, where	v and Corporate Affairs crosoft Way, Redmond, ESENTATIVES), to insert and given wing Office <u>US - United</u> this APPLICATION's
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Microsoft Corporation, a successors and assigns ("ASSIC entire and exclusive rights, title (and all other applications a applications, in and for the U ("APPLICATION DERIVATIVES"));	GNEE"), is entitled to, and e and interest in the INV and patents derived the	ENTION and the APPLICATION refrom, such as continuing
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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 in the INVENTION and the APPLICATION (and APPLICATION DERIVATIVES);

Brallyse Hughes—	6/11/2013
Inventor's Signature	Date
BRADLEY HUGHES Printed Name in English	Printed Name in Native Language (if other than English)

PATENT ASSIGNMENT

inventor of application (subject matter entitled " <u>USING DI</u>	("INVENTION") disclosed FFERENT CONNECTIVITY (l inventor or an original joint and/or claimed in a patent CHECKS TO DETERMINE CAUSES
OF CONNEC	<u>TIVITY ISSUES</u> " ("AI	PPLICATION"), which:	
\boxtimes		ASSIGNOR hereby aut	
		representatives, of the La	
		rosoft Corporation, One M	
	Washington 9805	52 (ASSIGNEE'S LEGAL REP	RESENTATIVES), to insert
	here in parentl	neses (filed on	and given
	Application No	by the follo	owing Office <u>US – United</u>
		and Trademark Office	
		filing date, and Office, who	
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	was filed on	and was given A	pplication No by
	the following Off	ice " <u>United States Patent a</u>	nd Trademark Office";
Micros	oft Cornoration	a Washington Cornoratio	on, on behalf of itself and its
Successors a	nd accions ("ASSI	CNEE") is antibled to	m, on behalf or itself and its
entire and a	voluciva richte +i+	divice in interest in the case	d is desirous of acquiring, the
(and all oth	Actuative rights, th	he and interest in the inv	ENTION and the APPLICATION
and an ou	er applications	and patents derived th	erefrom, such as continuing
applications,	in and for the	United States, its territor	ies, and all foreign countries
("APPLICATIO	N DERIVATIVES"));		
ASSIGN	NOR hereby	authorizes, and req	uests, ASSIGNEE'S LEGAL
REPRESENTAT	TIVES to insert t	he Application No., filin	g date, and Office into the
following tab	le for any APPLICA	TION DERIVATIVES after t	hey are known;
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PATENT ASSIGNMENT

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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 in the INVENTION and the APPLICATION (and APPLICATION DERIVATIVES);

Inventor's Signature	6/14/Z013 Date
<u>DIONICI</u> O AVILA	
Printed Name in English	Printed Name in Native Language (if other than English)

PATENT ASSIGNMENT

I <u>SHAWN McGRATH</u> ("AS inventor of subject matter ("application entitled " <u>USING DIFFORM OF CONNECTIVITY ISSUES</u> " ("APF	'INVENTION") disclosed a FERENT CONNECTIVITY CH	
ASSIGNEE'S legal r Department, Micro Washington 98052 here in parentho Application No States Patent a	ASSIGNOR hereby authorepresentatives, of the Law osoft Corporation, One Mice (ASSIGNEE'S LEGAL REPRESES (filed on by the followand Trademark Office)	v and Corporate Affairs crosoft Way, Redmond, ESENTATIVES), to insert and given wing Office <u>US – United</u> this APPLICATION's
	and was given Ap	
Microsoft Corporation, a successors and assigns ("ASSIC entire and exclusive rights, title (and all other applications a applications, in and for the U ("APPLICATION DERIVATIVES"));	GNEE"), is entitled to, and e and interest in the INVI and patents derived the	ENTION and the APPLICATION refrom, such as continuing
ASSIGNOR hereby REPRESENTATIVES to insert the following table for any APPLICATION	he Application No., filing	
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Page 1 of 2

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 in the INVENTION and the APPLICATION (and APPLICATION DERIVATIVES);

Mum M Inventor's Signature	6/11/13 Date
SHAWN McGRATH	
Printed Name in English	Printed Name in Native Language
	(if other than English)

PATENT ASSIGNMENT

LIASON NELSON ("ASSIC	NOR") am the original in	nventor or an original joint	
I <u>JASON NELSON</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent			
application entitled "USING DIFF	ERENT CONNECTIVITY CH	ECKS TO DETERMINE CAUSES	
OF CONNECTIVITY ISSUES" ("APP	LICATION"), which:		
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🛛 will be filed.	ASSIGNOR hereby author	rizes, and requests,	
ASSIGNEE'S legal r	epresentatives, of the Law	and Corporate Affairs	
Department, Micro	soft Corporation, One Mic	crosoft Way, Redmond,	
Washington 98052	(ASSIGNEE'S LEGAL REPRE	SENTATIVES), to insert	
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Application No	by the follow	ving Office <u>US – United</u>	
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Application No., fi	ling date, and Office, wher	ı known;	
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the following Office "United States Patent and Trademark Office";			
Microsoft Corporation, successors and assigns ("ASSIG entire and exclusive rights, tit (and all other applications applications, in and for the U"APPLICATION DERIVATIVES"));	GNEE"), is entitled to, and le and interest in the INV and patents derived the United States, its territori	ENTION and the APPLICATION refrom, such as continuing	
ASSIGNOR hereby	- · · · · · · · · · · · · · · · · · · ·	uests, ASSIGNEE'S LEGAL	
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Page 1 of 2

PATENT ASSIGNMENT

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Inventor's Signature

Date

JASON NELSON

Printed Name in English

Printed Name in Native Language

(if other than English)

PATENT ASSIGNMENT

of subject matter ("INVENTIC	ON") disclosed and/or cla CONNECTIVITY CHECKS	or or an original joint inventor imed in a patent application TO DETERMINE CAUSES OF
ASSIGNEE'S legal Department, Mic Washington 980 here in parent Application No. States Patent	ASSIGNOR hereby authorized representatives, of the Laterosoft Corporation, One Model of the Early of the Section of the Laterosoft Corporation, One Model of the Section of	w and Corporate Affairs licrosoft Way, Redmond, RESENTATIVES), to insert and given owing Office <u>US – United</u>) this APPLICATION's
	and was given A fice " <u>United States Patent a</u>	
successors and assigns ("ASS entire and exclusive rights, t (and all other applications	SIGNEE"), is entitled to, and itle and interest in the INV and patents derived th United States, its territor	on, on behalf of itself and itself is desirous of acquiring, the /ENTION and the APPLICATION erefrom, such as continuing ries, and all foreign countries
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Application No.	Filing Date	Office

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 in the INVENTION and the APPLICATION (and APPLICATION DERIVATIVES);

2 4	
Je	06/17/2013
Inventor's Signature	Date
JOHN TAIT	
Printed Name in English	Printed Name in Native Language (if other than English)

PATENT ASSIGNMENT

I <u>AARON WHITNEY</u> ("ASS inventor of subject matter (" application entitled " <u>USING DIFF</u> <u>OF CONNECTIVITY ISSUES</u> " ("APF	'INVENTION") disclosed a FERENT CONNECTIVITY CH	
ASSIGNEE'S legal r Department, Micro Washington 98052 here in parentho Application No States Patent a	ASSIGNOR hereby authorepresentatives, of the Lavosoft Corporation, One Mi (ASSIGNEE'S LEGAL REPReses (filed on by the following date, and Office, when	v and Corporate Affairs crosoft Way, Redmond, ESENTATIVES), to insert and given wing Office <u>US – United</u> this APPLICATION's
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Danon Whitney Inventor's Signature	
AARON WHITNEY	
Printed Name in English	Printed Name in Native Language
	(if other than English)