504180434 01/17/2017

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
RYAN SCOTT HARADEN	12/12/2014
MATTHEW RAY TUBBS	12/05/2014
ADAM JAMES MUFF	12/16/2014
ROBERT ALLEN SHEARER	12/06/2014

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:	14574100

CORRESPONDENCE DATA

Fax Number: (415)489-4150

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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Correspondent Name: TYLER THORP

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ATTORNEY DOCKET NUMBER:	MSFT-01823US0
NAME OF SUBMITTER:	TYLER THORP
SIGNATURE:	/Tyler Thorp/
DATE SIGNED:	01/17/2017

Total Attachments: 8

source=1823-Haraden assignment#page1.tif source=1823-Haraden assignment#page2.tif source=1823-Tubbs assignment#page1.tif

> **PATENT REEL: 040985 FRAME: 0448** 504180434

source=1823-Tubbs assignment#page2.tif source=1823-Muff assignment#page1.tif source=1823-Muff assignment#page2.tif source=1823-Shearer assignment#page1.tif source=1823-Shearer assignment#page2.tif

> PATENT REEL: 040985 FRAME: 0449

I <u>Ryan Scott Haraden</u> ("AS inventor of subject matter ("I application entitled <u>"LOW POWER</u>	NVENTION") disclosed a	•
ASSIGNEE'S legal r LLC., One Microsof LEGAL REPRESENTA <u>December 17, 201</u> following Office <u>US</u>	ASSIGNOR hereby authorepresentative, Microsoft to Way, Redmond, Washingth ATIVES), to insert here in the ATIVES of the ATIVES of the Application Note that and the Dication Note that and the ATIVES of the ATIVES o	Technology Licensing, con 98052 (ASSIGNEE'S parentheses (filed on lo. 14/574,100 by the Trademark Office) this
	and was given A by the following Office ";	pplication
Microsoft Technology Lice behalf of itself and its successors of acquiring, the entire and exc priority, in the INVENTION and the derived therefrom, such as cont United States, its territories, and	s and assigns ("ASSIGNEE"), clusive rights, title and in he APPLICATION (and all o inuing applications, in wh	terest, including the right of ther applications and patents ole or in part, in and for the
ASSIGNOR hereby authorize to insert the Application No., fit APPLICATION DERIVATIVES after	iling date, and Office into	EE'S LEGAL REPRESENTATIVES the following table for any
Application No.	Filing Date	Office

MS Docket No.: <u>355173.01</u>

MS Docket No.: <u>355173.01</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"));

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

Ryan Scott Haraden

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

PATENT ASSIGNMENT MS Docket No.: 355173.01

I <u>Matthew F</u>	<u> Ray Tubbs</u> ("AS:	SIGNOR") am the origina	al inventor or an original joint
inventor of subje	ect matter ("IN	NVENTION") disclosed	and/or claimed in a patent
application entitled "LOW POWER DMA SNOOP AND SKIP" ("APPLICATION"), which:			
⊠ will	be filed. A	ASSIGNOR hereby auth	orizes, and requests,
ASSI	GNEE'S legal re	epresentative, Microsoft	Technology Licensing,
LLC.,	One Microsoft	Way, Redmond, Washing	gton 98052 (ASSIGNEE'S
LEGA	L REPRESENTA	TIVES), to insert here in	n parentheses (filed on
<u>Dece</u>	<u>mber 17, 2014</u>	1 and given Application	No. <u>14/574,100</u> by the
follo	wing Office <u>US</u> -	- United States Patent an	<u>d Trademark Office</u>) this
APPL	ICATION's App	lication No., filing date, a	and Office, when known;
□ was t	filed on	and was given	Application
No _		_ by the following Office	2
Microsoft T	echnology Lice	nsing, LLC, a Washingto	n 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			
•			hole or in part, in and for the
			PPLICATION DERIVATIVES"));
,	,	j	,,,
ASSIGNOR F	nereby authoriz	res and requests ASSIGI	NEE'S LEGAL REPRESENTATIVES
to insert the Application No., filing date, and Office into the following table for any			NEE 3 LEGAL REFRESENTATIVES
	•	•	
	lication No., fil	ing date, and Office in	
to insert the Appl APPLICATION DER	lication No., fil	ing date, and Office in they are known;	to the following table for any
to insert the App	lication No., fil	ing date, and Office in	
to insert the Appl APPLICATION DER	lication No., fil	ing date, and Office in they are known;	to the following table for any
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MS Docket No.: 355173.01

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).

Marton Ru Du	12/5/2014
Inventor's Signature	Date
Matthew Ray Tubbs	
Printed Name in English	Printed Name in Native Language
	(if other than English)

PATENT ASSIGNMENT MS Docket No.: 355173.01

I <u>Adam James Muff</u> ("ASS	GIGNOR") am the original	inventor or an original join		
inventor of subject matter ("I	NVENTION") disclosed a	nd/or claimed in a patent		
application entitled "LOW POWER	<u>: DMA SNOOP AND SKIP</u> " ("	'APPLICATION"), which:		
oxtimes will be filed. ,	ASSIGNOR hereby autho	rizes, and requests,		
ASSIGNEE'S legal r	epresentative, Microsoft	Technology Licensing,		
LLC., One Microsoft Way, Redmond, Washington 98052 (ASSIGNEE'S				
LEGAL REPRESENTA	ATIVES), to insert here in	parentheses (filed on		
December 17, 201	$\underline{4}$ and given Application N	lo. <u>14/574,100</u> by the		
following Office <u>US</u>	– United States Patent and	Trademark Office) this		
APPLICATION's App	olication No., filing date, ar	nd Office, when known;		
\square was filed on	and was given A	pplication		
No	by the following Office			
	". ————————————————————————————————————			
Microsoft Technology Lice	ensing, LLC, a Washington	limited liability company, or		
behalf of itself and its successors	and assigns ("ASSIGNEE"),	is entitled to, and is desirous		
of acquiring, the entire and exc	clusive rights, title and in	terest, including the right o		
priority, in the INVENTION and the	ne APPLICATION (and all o	ther applications and patents		
derived therefrom, such as cont	inuing applications, in wh	ole or in part, in and for the		
United States, its territories, and	all foreign countries ("APF	PLICATION DERIVATIVES"));		
ASSIGNOR hereby authoriz	zes, and requests, ASSIGN	EE'S LEGAL REPRESENTATIVES		
to insert the Application No., fi	ling date, and Office into	the following table for any		
APPLICATION DERIVATIVES after	they are known;			
Application No.	Filing Date	Office		
	-			

MS Docket No.: <u>355173.01</u>

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Inventor's Signature Adam James Muff	(2/16/20(4) Date
Printed Name in English	Printed Name in Native Language (if other than English)

PATENT ASSIGNMENT MS Docket No.: 355173.01

inventor of	subject matter ("I	, and the second	l inventor or an original join nd/or claimed in a paten 'APPLICATION"), which:
	ASSIGNEE'S legal r LLC., One Microsof LEGAL REPRESENTA December 17, 201 following Office US	ASSIGNOR hereby authorepresentative, Microsoft of the Way, Redmond, Washingth ATIVES), to insert here in and given Application Nous Patent and polication Nous Filing date, are	Technology Licensing, ton 98052 (ASSIGNEE'S parentheses (filed on lo. 14/574,100 by the Trademark Office) this
		and was given A by the following Office ";	application
behalf of itse of acquiring, priority, in the derived there	elf and its successors the entire and exc ne INVENTION and the efrom, such as cont	s and assigns ("ASSIGNEE"), clusive rights, title and in he APPLICATION (and all o inuing applications, in wh	limited liability company, or is entitled to, and is desirous terest, including the right of ther applications and patents tole or in part, in and for the PLICATION DERIVATIVES"));
to insert the	•	iling date, and Office into	EE'S LEGAL REPRESENTATIVES the following table for any
Application		Filing Date	Office
1			

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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Inventor's Signature	12-6-14 Date
Robert Allen Shearer	
Printed Name in English	Printed Name in Native Language
	(if other than English)

MS Docket No.: <u>355173.01</u>

RECORDED: 01/17/2017