PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4165331

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
B. ANIL KUMAR	11/29/2016
WINSTON M. JOHNSTON	11/30/2016
OLOF L.E. MASES	11/30/2016
SHIR AHARON	11/30/2016
LIHUA ZHU	12/01/2016

RECEIVING PARTY DATA

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City:	REDMOND
State/Country:	WASHINGTON
Postal Code:	98052

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15365927

CORRESPONDENCE DATA

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ONE WORLD TRADE CENTER Address Line 2: Address Line 4: PORTLAND, OREGON 97204

ATTORNEY DOCKET NUMBER:	3382-97726-01
NAME OF SUBMITTER:	KYLE B. RINEHART
SIGNATURE:	/Kyle B. Rinehart/
DATE SIGNED:	12/01/2016

Total Attachments: 9

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I, B. Anil Kumar ("ASSIGNOR"), am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "GLOBAL HASH BASED MOTION ESTIMATION FOR SCREEN REMOTING SCENARIOS" ("APPLICATION"), which:				
will be filed. ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S legal representatives, of Microsoft Technology Licensing, LLC, One Microsoft Way, Redmond, Washington 98052 (ASSIGNEE'S LEGAL REPRESENTATIVES) to insert here in parentheses (filed on 11/30/2016, and given Application No. 15/365,927 by the following Office: 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 "United States Patent and Trademark Office";			
Microsoft Technology Lice behalf of itself and its successor desirous of acquiring, the entire right of priority, in the INVENTIC patents derived therefrom, such for the United States, its territori DERIVATIVES"));	s and assigns ("ASSIGNEE" and exclusive rights, title N and the APPLICATION (a as continuing applications	and interest, including the and all other applications and s, in whole or in part,in and		
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APPLICATION DERIVATIVES after	-	e ronowing tuble for any		
Application No. Filing Date Office				

For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to

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

B. Anil Kumar

Printed Name in English

Printed Name in Native Language (if other than English)

inventor of subject matt	nston ("ASSIGNOR"), am the er ("INVENTION") disclosed TAL HASH-BASED MOTION I ON"), which:	and/or claimed in a pa	tent
legal rep Microso REPRESE and give Trademi	led. ASSIGNOR hereby autioresentatives, of Microsoft of Way, Redmond, Washingt NTATIVES) to insert here in application No. 15/365,92 ork Office) this APPLICATION when known;	Fechnology Licensing, I on 98052 (ASSIGNEE'S parentheses (filed on 27 by the United Stat	LLC, One LEGAL 11/30/2016 es Patent and
	on and was gived States Patent and Trader		by
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·	authorizes, and requests, A No., filing date, and Office ES after they are known;		
Application No.	Filing Date	Office	

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///30/20/6
Inventor's Signature Date

Winston M. Johnston
Printed Name in English Printed Name in Native Language (if other than English)

inventor of subject application entitle	Mases ("ASSIGNOR"), an it matter ("INVENTION") ed "LOCAL HASH-BASED "LICATION"), which:	disclosed and/or clai	
le M R a T	nd given Application No	Microsoft Technology , Washington 98052 (ert here in parenthes . <u>15/365,927</u> by the	Licensing, LLC, One
	as filed ona ne United States Patent a		
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Inventor's Signature	Date
Olof L.E. Mases	
Printed Name in English	Printed Name in Native Language (if
	other than English)

I, Shir Aharon ("ASSIGNOR"), am the original inventor or an original joint invento of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "LOCAL HASH-BASED MOTION ESTIMATION FOR SCREEN REMOTING SCENARIOS" ("APPLICATION"), which:			
will be filed. ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S legal representatives, of Microsoft Technology Licensing, LLC, One Microsoft Way, Redmond, Washington 98052 (ASSIGNEE'S LEGAL REPRESENTATIVES) to insert here in parentheses (filed on 11/30/2016 and given Application No. 15/365,927 by the 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 United States Patent and Trademark Office;		
Microsoft Technology Licens behalf of itself and its successors a desirous of acquiring, the entire arright of priority, in the INVENTION patents derived therefrom, such as for the United States, its territories DERIVATIVES"));	and assigns ("ASSIGNEE") nd exclusive rights, title and the APPLICATION (a s continuing applications	and interest, including the and all other applications and a, in whole or in part,in and	
ASSIGNOR hereby authorize to insert the Application No., filing APPLICATION DERIVATIVES after th	g date, and Office into th	EE'S LEGAL REPRESENTATIVES e following table for any	
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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	11-30-2016 Date
Shir Aharon Printed Name in English	Printed Name in Native Language (if
3	other than English)

	PATENT ASSIGNMENT		
I. Lihua Zhu ("ASSIGNOR") subject matter ("INVENTION") disc HASH-BASED MOTION ESTIMAT ("APPLICATION"), which	am the original inventor or a losed and/or claimed in a par ION FOR SCREEN REMOT	ent annlication	entified "LOCAL"
representatives, Redmond, Wash insert here in par by the United Sta	ilGNOR hereby authorizes, a of Microsoft Technology Lice ington 98052 (ASSIGNEE'S i entheses (filed on 11/30/20 ites Patent and Trademark O ling date, and Office, when k	nsing, LLC, On LEGAL REPRE 16, and given A ffice) this APPI	e Microsoft Way, ESENTATIVES) to Application No. 15/365,927
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of itself and its successors and assacquing, the entire and exclusive INVENTION and the APPLICATIO such as continuing applications, in and all foreign countries ("APPLICATION") ASSIGNOR hereby authorications and all foreign countries to insert the	rights, title and interest, inclu N (and all other applications whole or in part in and for the ATION DERIVATIVES")); zes, and requests, ASSIGNE Application No., filing date, a	ed to, and is de ding the right of and patents de a United States E'S LEGAL	sirous of of priority, in the rived therefrom, i, its territories,
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Inventor's Signature

RECORDED: 12/01/2016