PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SHAOXIANG SU	02/22/2018
DHRUV MANCHANDA	02/21/2018
GERALD A. POGUE JR.	02/21/2018
SHIQI WANG	02/21/2018

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:	15902803		

CORRESPONDENCE DATA

Fax Number: (720)204-5669

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 TECHNOLOGY LICENSING, LLC

Address Line 1: ONE MICROSOFT WAY

Address Line 4: REDMOND, WASHINGTON 98052

ATTORNEY DOCKET NUMBER:	403662-US-NP
NAME OF SUBMITTER:	MELANIE R. BAUM
SIGNATURE:	/Melanie R. Baum/
DATE SIGNED:	02/22/2018

Total Attachments: 8

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PATENT 504789750 REEL: 045010 FRAME: 0648

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> PATENT REEL: 045010 FRAME: 0649

MS Docket No.: 403662-US-NP

I <u>Shaoxiang SU</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "<u>LOW LATENCY BROADCASTING OF GAME ENGINE FRAMES"</u> ("APPLICATION"), which:

\boxtimes	will be filed. ASSIGNOR hereby authorizes, and requ	ests,
	ASSIGNEE'S legal representative, Microsoft Technology Licen	sing,
	LLC., One Microsoft Way, Redmond, Washington 98052 (ASSIG)	vee's
	LEGAL REPRESENTATIVES), to insert here in parentheses	(filled
	on February 22, 2018 and given Application No. 15/902,803	ру
	the following Office <u>US - United States Patent and Trademark C</u>)ffice
	this APPLICATION's Application No., filing date, and Office.	when
	known;	
	was filed on and was given Application	
	No by the following Office "US - United State	3 S. 2.30
	Patent and 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 DEPLYATIVES after they are known:

Application No.	Filing Date	Office

Page 1 of 2

	MS	Docket No.:	403662-US-NP

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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, 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).

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Inventor's Signature	Date
Shaoxlang SU	
Printed Name in English	Printed Name in Native Language (if other than English)

MS Docket No.: <u>403662-US-NP</u>

I <u>Dhr</u> i	<u>uv MANCI</u>	<u>HANDA</u>	("ASSIGNO)R") an	n the origir	nal inv	ventor	or an or	igina	al joint
inventor of	subject	matter	"INVENT	TON")	disclosed	and/	or clai	med in	a	patent
application	entitled	"LOW	LATENCY	BROA	DCASTING	OF	GAME	ENGINE	FF	RAMES"
("APPLICATION	ON"), whic	:h:								

\boxtimes	will	be	filed.	ASSIGNOR	hereby	authorizes,	and	reques	its,
	ASSIC	SNEE	'S legal	representat	ive, Micr	osoft Techno	ology	Licensir	ng,
	LLC.,	One	Microso	oft Way, Redi	nond, Wa	ashington 980	052 (A	SSIGNE	E'S
	LEGA	L RE	PRESENT	ΓΑΤΙVES), to	insert h	ere in paren	these	s (filed	on
	<u>Febru</u>	ıary	22, 201	<u>8</u> and giver	n Applica	tion No. <u>15/</u>	902,8	03 by t	the
	follov	ving	Office <u>U</u>	S – United S	tates Pate	ent and Trade	mark	Office t	his
	APPL	ICAT	TON's Ap	oplication No	o., filing c	late, and Offic	ce, wh	en knov	vn;
	was f	iled	on		and was g	given Applica	tion		
	No _			by the f	ollowing	Office " <u>US – l</u>	<u>Jnited</u>	States	
	<u>Pater</u>	ıt an	d Trader	mark Office"	,				

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Dhruv MANCHANDA

Inventor's Signature

Printed Name in English

ate

Printed Name in Native Language (if other than English)

MS Docket No.: <u>403662-US-NP</u>

I <u>Ger</u> a	ald A. PO	<u>GUE, Jr.</u>	("ASSIGNO)R") ar	n the origir	nal inv	ventor (or an ori	ginal joint
inventor of	subject	matter	("INVENT	ION")	disclosed	and/	or clai	med in	a patent
application	entitled	"LOW	LATENCY	BROA	DCASTING	OF	GAME	ENGINE	FRAMES"
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	LLC., One Microsoft Way, Redmond, Washington 98052 (ASSIGNEE'S
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	February 22, 2018 and given Application No. $15/902,803$ by the
	following Office <u>US - United States Patent and Trademark Office</u> this
	APPLICATION's Application No., filing date, and Office, when known;
	was filed on and was given Application
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Date

Gerald A. POGUE, Jr.

Printed Name in English

Printed Name in Native Language (if other than English)

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	LLC.	, On	e Micros	oft Way, Redi	mond, Wa	ashington S	98052 (A	SSIGNEE	'S
	LEGA	AL R	EPRESEN	TATIVES), to	insert h	ere in par	enthese	s (filed o	n
	<u>Febr</u>	uary	22, 20	<u>18</u> and giver	n Applica	tion No. <u>1</u>	5/902,8	03 by th	ıe
	follo	wing) Office <u>l</u>	JS – United S	tates Pate	ent and Tra	<u>demark</u>	Office th	is
	APPL	_ICA ⁻	ΓΙΟΝ's A	pplication No	o., filing o	late, and Of	ffice, wh	en knowi	n;
	was	filed	on		and was g	given Appli	cation		
	No_			by the f	ollowing	Office "US	- United	<u>States</u>	
	Pate	nt ar	nd Trade	mark Office)	". '				

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Inventor's Signature

Date

Shiqi WANG

RECORDED: 02/22/2018

Printed Name in English

Printed Name in Native Language

(if other than English)