### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7275662

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
OSCAR ROSELL MARTINEZ	04/12/2022
ISHWAR AGARWAL	04/06/2022
GEORGE CHRYSOS	04/12/2022
YEVGENIY BAK	04/06/2022

#### **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:	17718920

#### **CORRESPONDENCE DATA**

Fax Number:

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.

Email: usdocket@microsoft.com

Correspondent Name: MICROSOFT CORPORATION

Address Line 1: ONE MICROSOFT WAY

Address Line 4: REDMOND, WASHINGTON 98052

ATTORNEY DOCKET NUMBER:	411232-US-NP
NAME OF SUBMITTER:	KATHERINE WILSON
SIGNATURE:	/Katherine Wilson/
DATE SIGNED:	04/12/2022

#### **Total Attachments: 8**

source=411232-US-NP-Assignment-GC-Signed#page1.tif source=411232-US-NP-Assignment-GC-Signed#page2.tif source=411232-US-NP-Assignment-IA-Signed#page1.tif source=411232-US-NP-Assignment-IA-Signed#page2.tif

PATENT 507228809 REEL: 059575 FRAME: 0622

source=411232-US-NP-Assignment-ORM-Signed#page1.tif source=411232-US-NP-Assignment-ORM-Signed#page2.tif source=411232-US-NP-Assignment-YB-Signed#page1.tif source=411232-US-NP-Assignment-YB-Signed#page2.tif

> PATENT REEL: 059575 FRAME: 0623

MS Docket No.: 411232-US-NP

I George CHRYSOS ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "DIRECT SWAP CACHING WITH ZERO LINE OPTIMIZATIONS" ("APPLICATION"), which:

X	will	be	filed.	ASSIGNOR	hereby	authoriz	es, and	requ	uests,
	ASSIC	SNEE	'S legal	representat	ive, Micr	osoft Tec	hnology	Licer	nsing,
	LLC,	One	Microso	oft Way, Redi	nond, Wa	ashington	98052 (4	ASSIG	NEE'S
	LEGA	L R	EPRESEN	ITATIVES), t	o insert	here in	parenth	eses	(filed
	on			and gi	ven Appli	cation No			by
	the fo	ollov	ving Offi	ice <u>US – Unite</u>	ed States	Patent an	<u>d Tradem</u>	<u>iark C</u>	Office)
	this /	APPL	ICATIO	N's Applicati	on No., 1	filing date	e, and Of	fice,	when
	know	n;							
	was f	iled	on		and was g	given App	lication		
	No _			by the f	ollowing	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 DERIVATIVES after they are known;

Application No.	Filing Date	Office

MS Docket No.: 411232-US-NP

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

George CHRYSOS

Printed Name in English

Printed Name in Native Language

4/12/2022

(if other than English)

BE THE PARTENT ASSIGNMENT ASSIGNMENT MS Docket No.: 411232-US-NP I Ishwar ACARWAL ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "DIRECT SWAP CACHING WITH ZERO LINE OPTIMIZATIONS" ("APPLICATION"), which: I was a second of the second of th ASSIGNEE'S legal representative, Microsoft Technology Licensing, LLC, One Microsoft Way, Redmond, Washington 98052 (ASSIGNEE'S LEGAL REPRESENTATIVES), to insert here in parentheses (filed and given Application No. the following Office <u>US - United States Patent and Trademark Office</u>) this APPLICATION's Application No., filing date, and Office, when known; syndian klone Wiles What they have an an electric as the best profited by was filed on \_\_\_\_\_\_ and was given Application No \_\_\_\_\_\_by the following 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 DERIVATIVES after they are known; Application No. Filing Date Office

Page	3	AF 3
L. W.C.S.	- 3	1.33

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).

4-4-4	04/06/22	
Inventor's Signature	Date	
Ishwar AGARWAL		
Printed Name in English	Printed Name in Native Language (if other than English)	

I Oscar ROSELL MARTINEZ ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent

MS Docket No.: 411232-US-NP

application ("APPLICATIO		SWAP CACHING WITH	ZERO LINE OPTIMIZATIONS'
	ASSIGNEE'S legal in LLC, One Microsoft LEGAL REPRESENT on the following Office	ASSIGNOR hereby authorepresentative, Microsoft Way, Redmond, Washing ATIVES), to insert here and given Application US – United States Patents Application No., filing o	Technology Licensing, ton 98052 (ASSIGNEE'S in parentheses (filed Noby and Trademark Office)
		and was given A by the following Office ";	
behalf of itse of acquiring priority, in the derived there	elf and its successors, the entire and exc ne INVENTION and t efrom, such as cont	s and assigns ("ASSIGNEE") clusive rights, title and in he APPLICATION (and all c inuing applications, in wh	i limited liability company, or , is entitled to, and is desirous terest, including the right of other applications and patents nole or in part, in and for the PLICATION DERIVATIVES"));
to insert the	e Application No., f	iling date, and Office into	EE'S LEGAL REPRESENTATIVES the following table for any
Application	NOERIVATIVES after No.	Filing Date	Office
		3	

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

APRIL IL, 2627

Date

Oscar ROSELL MARTINEZ

Printed Name in English

BUTTAM WESCH MARTINEZ

Printed Name in Native Language (if other than English)

MS Docket No.: 411232-US-NP

I Yevgeniy BAK ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "DIRECT SWAP CACHING WITH ZERO LINE OPTIMIZATIONS" ("APPLICATION"), which:

X	will be filed. ASSIGNOR hereby authorizes, and requests,
	ASSIGNEE'S legal representative, Microsoft Technology Licensing,
	LLC, One Microsoft Way, Redmond, Washington 98052 (ASSIGNEE'S
	LEGAL REPRESENTATIVES), to insert here in parentheses (filed
	on and given Application No 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
	No by the following 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 DERIVATIVES after they are known;

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 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).

Eugene Bat	04/06/22
Inventor's Signature	Date
Yevgeniy BAK	
Printed Name in English	Printed Name in Native Language
	(if other than English)