504870433 04/16/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4917173

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DOUGLAS STEWART LAURENCE	04/11/2018
NING LIAO	04/09/2018
JOSEF SCHIEFER	04/09/2018
SAMEER CHOUDHARY	04/09/2018
RUIWEN ZHAO	04/09/2018
MICHAEL BANFIELD	04/12/2018
FUSHENG YUAN	04/11/2018
KAIWEN QU	04/09/2018

RECEIVING PARTY DATA

Name:	AMAZON TECHNOLOGIES, INC.
Street Address:	PO BOX 81226
City:	SEATTLE
State/Country:	WASHINGTON
Postal Code:	98108-1226

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15952806

CORRESPONDENCE DATA

Fax Number: (512)853-8801

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: 512-853-8800

Email: abowen@intprop.com
Correspondent Name: ROBERT C. KOWERT

Address Line 1: PO BOX 398

Address Line 4: AUSTIN, TEXAS 78767-0398

ATTORNEY DOCKET NUMBER:	6924-67400
NAME OF SUBMITTER:	ROBERT C KOWERT
SIGNATURE:	/Robert C. Kowert/

PATENT 504870433 REEL: 045552 FRAME: 0554

DATE SIGNED:	04/16/2018
Total Attachments: 12	
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PATENT REEL: 045552 FRAME: 0555

U.S. Patent Appln. No	Attorney Docket No. <u>6924-67400</u>
Filing Date	Client Docket No. <u>P44723-US</u>
PARTIES TO THE ASSIGNMENT	
Assignor(s):	
Douglas Stewart Laurence	Ruiwen Zhao
410 Terry Avenue North	410 Terry Avenue North
Seattle, WA 98109-5210	Seattle, WA 98109-5210
Ning Liao	Michael Banfield
410 Terry Avenue North	410 Terry Avenue North
Seattle, WA 98109-5210	Seattle, WA 98109-5210
Josef Schiefer	Fusheng Yuan
410 Terry Avenue North	410 Terry Avenue North
Seattle, WA 98109-5210	Seattle, WA 98109-5210
Sameer Choudhary	Kaiwen Qu
410 Terry Avenue North	410 Terry Avenue North
Seattle, WA 98109-5210	Seattle, WA 98109-5210
Assignee:	
Amazon Technologies, Inc.	
PO Box 81226	
Seattle, WA 98108-1226	
AGREEMENT	
WHEREAS, ASSIGNOR(S) (listed above) are	inventor(s) of an invention entitled
" <u>SERVER-SIDE FILTERING OF UNSTRUCTURED DA</u>	TA ITEMS AT OBJECT STORAGE SERVICES"
(Invention) for which a non-provisional application	for United States Letters Patent (Application):
was filed on and accorded	U.S. Application No; or
will be filed concurrently with the subn	nission of this executed PATENT ASSIGNMENT
for recordation.	
ASSIGNOR(S) hereby authorizes and requests A	SSIGNEE'S legal representatives, of

Page 1 of 12

U.S. Patent Appln. No	Attorney Docket No. <u>6924-67400</u>
Filing Date	Client Docket No. <u>P44723-US</u>
Title of Invention: <u>SERVER-SIDE FILTERING OF SERVICES</u>	UNSTRUCTURED DATA ITEMS AT OBJECT STORAGE
Inventors: Douglas Stewart Laurence , Ning L Zhao , Michael Banfield , Fusheng Yuan , Kaiw	iao, Josef Schiefer, Sameer Choudhary, Ruiwen en Qu
Meyertons, Hood, Kivlin, Kowert & Goetzel, F	P.C., associated with Customer No. <u>136594</u> , to insert
in the header above and here in parenthes	ses (U.S. Patent Application No, filed
) this application's U.S. applicatio	on number and filing date, when known.
WHEREAS, ASSIGNEE, a corporation	of the State of Nevada, is desirous of acquiring the
entire right, title and interest in and to the Inv	vention and in and to any letters patent that may be

granted therefor in the United States and in any and all foreign countries.

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S) hereby sell, assign and transfer unto ASSIGNEE its successors and assigns, the entire right, title and interest in and to said Invention and any improvements thereto, said Application and any and all letters patent which may be granted for said Invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all provisional, divisions, reissues, re-examinations and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said Application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said Invention, Application and all letters patent on said Invention to be held and enjoyed by ASSIGNEE and its successors and assigns for their use and benefit and of their successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNOR(S) had this assignment, transfer and sale not been made. ASSIGNOR(S) hereby authorize and request the Commissioner of Patents and Trademarks, as well as all other applicable patent offices throughout the world, to

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U.S. Patent Appln. No.

PATENT ASSIGNMENT AND DECLARATION (37 CFR 1.63)

Attorney Docket No. 6924-67400

Filing Date _____ Client Docket No. <u>P44723-US</u>

Title of Invention: <u>SERVER-SIDE FILTERING OF UNSTRUCTURED DATA ITEMS AT OBJECT STORAGE</u>

SERVICES

Inventors: Douglas Stewart Laurence, Ning Liao, Josef Schiefer, Sameer Choudhary, Ruiwen

Zhao, Michael Banfield, Fusheng Yuan, Kaiwen Qu

issue all letters patent on said Invention to ASSIGNEE. ASSIGNOR(S) agree to execute all

instruments and documents required for the making and prosecution of applications for United

States and foreign letters patent on said Invention, for litigation regarding said letters patent, or

for the purpose of protecting title to said Invention or letters patent therefor.

AND ASSIGNOR(S) DOES HEREBY sell, assign, transfer, and convey to ASSIGNEE, its

successors, legal representatives, and assigns all claims for damages and all remedies arising out

of any violation of the rights assigned hereby that may have accrued prior to the date of

assignment to ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue

for, collect, and retain damages for past infringements of said letters patent before or after

issuance.

AND ASSIGNOR(S) DOES HEREBY covenant and agree that ASSIGNOR(S) will communicate

to ASSIGNEE, its successors, legal representatives and assigns, any facts known to ASSIGNOR

respecting the Invention or said Application, and testify in any legal proceeding, assist in the

preparation of any other patent property relating to the Application and the Invention or any

improvements made thereto, sign/execute all lawful papers, provide all requested documents,

execute and make all rightful oaths and/or declarations in connection with the Application and

the Invention including any improvements made thereto, any patent applications filed therefrom,

and any continuing application filed from any of the aforementioned applications, and generally

do everything possible to aid ASSIGNEE, its successors, legal representatives and assigns, to obtain

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PATENT REEL: 045552 FRAME: 0558

U.S. Patent Appln. No	Attorney Docket No. <u>6924-67400</u>
Filing Date	Client Docket No. <u>P44723-US</u>
Title of Invention: <u>SERVER-SIDE FILTERING OF L</u> <u>SERVICES</u>	INSTRUCTURED DATA ITEMS AT OBJECT STORAGE
Inventors: Douglas Stewart Laurence , Ning Lia Zhao , Michael Banfield , Fusheng Yuan , Kaiwe	no, Josef Schiefer, Sameer Choudhary, Ruiwen n Qu
and enforce proper patent protection for the	e Invention in all countries. These provisions are
binding upon ASSIGNOR's heirs, legal represer	itatives, administrators, and assigns.

U.S. Patent Appln. No	Attorney Docket N	o. <u>6924-67400</u>
Filing Date	Client Docket I	No. <u>P44723-US</u>
Title of Invention: <u>SERVER-SIDE FILTERING</u> <u>SERVICES</u>	G OF UNSTRUCTURED DATA ITEMS AT OBJE	CT STORAGE
Inventors: Douglas Stewart Laurence , Ni Zhao , Michael Banfield , Fusheng Yuan , K	ing Liao, Josef Schiefer, Sameer Choudhai Kaiwen Qu	ry, Ruiwen
<u>DECLARATION</u> As a below named inventor, I hereby dec	clare that:	
This declaration is directed to:		
the attached application; or		
United States Patent Applicat	tion number filed on	; or
PCT International Application	number filed on	
The above-identified application was made	de or authorized to be made by me.	
I believe that I am the original inventor o	or an original joint inventor of a claimed In	vention in the
application.		
I have reviewed and understand the cont	tents of the above-identified application, a	and
acknowledge the duty to disclose to the \ensuremath{U}	US Patent & Trademark Office all informa	tion known to
me to be material to the patentability as	defined in 37 CFR 1.56.	
I hereby acknowledge that any willful fals	se statement made in this declaration is p	unishable
under 18 USC 1001 by fine or imprisonme	ent of not more than five (5) years, or bot	h.
Douglas Stewart Laurence		
Douglas Stewart Laurence		
April 11, 2018		
Date		

U.S. Patent Appln. No	Attorney Docket No. <u>6924-674</u>	00
Filing Date	Client Docket No. <u>P44723-</u>	<u>US</u>
Title of Invention: <u>SERVER-SIDE FILTERING</u> <u>SERVICES</u>	G OF UNSTRUCTURED DATA ITEMS AT OBJECT STORAGE	: =
Inventors: Douglas Stewart Laurence , Ni chael Banfield, Fusheng Yuan, K	ling Liao, Josef Schiefer, Sameer Choudhary, Ruiwen Kaiwen Qu	
<u>DECLARATION</u>		
As a below named inventor, I hereby dec	clare that:	
This declaration is directed to:		
igstyle the attached application; or		
United States Patent Applicat	tion number filed on; or	
PCT International Application	n number filed on	
The above-identified application was made	ade or authorized to be made by me.	
I believe that I am the original inventor of application.	or an original joint inventor of a claimed Invention in th	ne
I have reviewed and understand the cont	stents of the above-identified application, and	
acknowledge the duty to disclose to the U	US Patent & Trademark Office all information known	to
me to be material to the patentability as	s defined in 37 CFR 1.56.	
I hereby acknowledge that any willful fals	lse statement made in this declaration is punishable	
under 18 USC 1001 by fine or imprisonme	nent of not more than five (5) years, or both.	
DocuSigned by: /Muz Liab/	-	
Ning Liao		
April 9, 2018	_	
Date		

Page 6 of 12

U.S. Patent Appln. No	Attorney Docket No. <u>6924-67400</u>
Filing Date	Client Docket No. <u>P44723-US</u>
Title of Invention: <u>SERVER-SIDE FILTERING</u> <u>SERVICES</u>	OF UNSTRUCTURED DATA ITEMS AT OBJECT STORAGE
Inventors: Douglas Stewart Laurence , Ni Zhao , Michael Banfield , Fusheng Yuan , R	ng Liao, Josef Schiefer, Sameer Choudhary, Ruiwen Kaiwen Qu
DECLARATION As a below named inventor, I hereby dec	lare that:
This declaration is directed to:	
the attached application; or	
United States Patent Applicat	ion number filed on; or
PCT International Application	number filed on
The above-identified application was made	de or authorized to be made by me.
_	r an original joint inventor of a claimed Invention in the
application.	
I have reviewed and understand the cont	ents of the above-identified application, and
acknowledge the duty to disclose to the	US Patent & Trademark Office all information known to
me to be material to the patentability as	defined in 37 CFR 1.56.
I hereby acknowledge that any willful fal-	se statement made in this declaration is punishable
	ent of not more than five (5) years, or both.
Josef Schiefer	
Josef Schiefer	
April 9, 2018	
Date	

Page 7 of 12

U.S. Patent Appln. No	Attorney Docket N	lo. <u>6924-67400</u>
Filing Date	Client Docket I	No. <u>P44723-US</u>
Title of Invention: <u>SERVER-SIDE FILTERING C</u> <u>SERVICES</u>	DE UNSTRUCTURED DATA ITEMS AT OBJE	<u>CT STORAGE</u>
Inventors: Douglas Stewart Laurence , Ning Zhao , Michael Banfield , Fusheng Yuan , Kai		ry, Ruiwen
<u>DECLARATION</u> As a below named inventor, I hereby declar	re that:	
This declaration is directed to:		
igstyle the attached application; or		
United States Patent Applicatio	n number filed on	; or
PCT International Application n	umber filed on	_·
The above-identified application was made	or authorized to be made by me.	
I believe that I am the original inventor or a application.	an original joint inventor of a claimed In	vention in the
I have reviewed and understand the conter	nts of the above-identified application, a	and
acknowledge the duty to disclose to the US	Patent & Trademark Office all informa	tion known to
me to be material to the patentability as de	efined in 37 CFR 1.56.	
I hereby acknowledge that any willful false	statement made in this declaration is p	unishable
under 18 USC 1001 by fine or imprisonmen	t of not more than five (5) years, or bot	h.
/DocuSigned by: /Sameer Choudhary/		
Sameer Choudhary		
April 9, 2018		
Date		

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U.S. Patent Appln. No	Attorney Docket No. <u>6924-67400</u>
Filing Date	Client Docket No. <u>P44723-US</u>
Title of Invention: <u>SERVER-SIDE FILTI</u> <u>SERVICES</u>	ERING OF UNSTRUCTURED DATA ITEMS AT OBJECT STORAGE
Inventors: Douglas Stewart Lauren Zhao , Michael Banfield , Fusheng Yu	ce, Ning Liao, Josef Schiefer, Sameer Choudhary, Ruiwen Jan, Kaiwen Qu
<u>DECLARATION</u> As a below named inventor, I hereb	y declare that:
This declaration is directed to:	
the attached application	r; or
United States Patent Ap	plication number filed on; or
PCT International Applic	ation number filed on
The above-identified application wa	s made or authorized to be made by me.
I believe that I am the original inverapplication.	tor or an original joint inventor of a claimed Invention in the
I have reviewed and understand the	e contents of the above-identified application, and
acknowledge the duty to disclose to	the US Patent & Trademark Office all information known to
me to be material to the patentabili	ty as defined in 37 CFR 1.56.
I hereby acknowledge that any willf	ul false statement made in this declaration is punishable
under 18 USC 1001 by fine or impris	conment of not more than five (5) years, or both.
Docusigned by: / Kniwen Buas/	
Ruiwen Zhao	
April 9, 2018	
Date	

Page 9 of 12

U.S. Patent Appln. No		Attorney Docket	No. <u>6924-67400</u>
Filing Date		Client Docke	t No. <u>P44723-US</u>
Title of Invention: <u>SERVER-SIDE FILTER</u> <u>SERVICES</u>	NG OF UNSTRUCTUE	RED DATA ITEMS AT OB.	JECT STORAGE
Inventors: Douglas Stewart Laurence , Zhao , Michael Banfield , Fusheng Yua		niefer, Sameer Choudh	ary, Ruiwen
<u>DECLARATION</u> As a below named inventor, I hereby o	leclare that:		
This declaration is directed to:			
igstyle igytyle igstyle igytyle	or		
United States Patent Appli	cation number	filed on	; or
PCT International Applicat	on number	filed on	<u>_</u> .
The above-identified application was r	nade or authorized	to be made by me.	
I believe that I am the original invento application.	r or an original joint	inventor of a claimed	Invention in the
I have reviewed and understand the co	ontents of the above	e-identified application	, and
acknowledge the duty to disclose to the	ne US Patent & Trad	emark Office all inform	ation known to
me to be material to the patentability	as defined in 37 CFF	R 1.56.	
I hereby acknowledge that any willful	false statement mac	de in this declaration is	punishable
under 18 USC 1001 by fine or imprisor	nment of not more t	han five (5) years, or b	oth.
Docusigned by: Michael Banfield/			
Michael Banfield			
. 17 42 2040			
April 12, 2018	<u> </u>		
Date			

Page 10 of 12

U.S. Patent Appln. No	Attorney Docket No. <u>6924-67400</u>
Filing Date	Client Docket No. <u>P44723-US</u>
Title of Invention: <u>SERVER-SIDE FILTERING</u> <u>SERVICES</u>	G OF UNSTRUCTURED DATA ITEMS AT OBJECT STORAGE
Inventors: Douglas Stewart Laurence , N Zhao , Michael Banfield , Fusheng Yuan ,	ing Liao, Josef Schiefer, Sameer Choudhary, Ruiwen Kaiwen Qu
<u>DECLARATION</u> As a below named inventor, I hereby dec	clare that:
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I believe that I am the original inventor of application.	or an original joint inventor of a claimed Invention in the
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me to be material to the patentability as	defined in 37 CFR 1.56.
I hereby acknowledge that any willful fal	se statement made in this declaration is punishable
under 18 USC 1001 by fine or imprisonm	ent of not more than five (5) years, or both.
Docusigned by: (Fushing Yuan)	
Fusheng Yuan	
April 11, 2018	
Date	_

U.S. Patent Appln. No	Attorney Docket No. <u>6924-67400</u>
Filing Date	Client Docket No. <u>P44723-US</u>
Title of Invention: <u>SERVER-SIDE FILTERIN</u> <u>SERVICES</u>	NG OF UNSTRUCTURED DATA ITEMS AT OBJECT STORAGE
Inventors: Douglas Stewart Laurence , I Zhao , Michael Banfield , Fusheng Yuan	Ning Liao, Josef Schiefer, Sameer Choudhary, Ruiwen , Kaiwen Qu
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The above-identified application was m	ade or authorized to be made by me.
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I hereby acknowledge that any willful fa	alse statement made in this declaration is punishable
under 18 USC 1001 by fine or imprison	ment of not more than five (5) years, or both.
Docusigned by: /kaiwen Gw	_
Kaiwen Qu	
April 9, 2018	
Date	_

Page 12 of 12

PATENT REEL: 045552 FRAME: 0567