### 504798413 02/28/2018

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
SUNDEEP AMIRINENI	02/28/2018
RON DIAMANT	02/28/2018
RANDY HUANG	02/28/2018
THOMAS A. VOLPE	02/28/2018

#### **RECEIVING PARTY DATA**

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Postal Code:	98108-1226	

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15908236

#### **CORRESPONDENCE DATA**

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ATTORNEY DOCKET NUMBER:	102028-1061197 (100900US)
NAME OF SUBMITTER:	KIMBERLY PAPP
SIGNATURE:	/Kimberly Papp/
DATE SIGNED:	02/28/2018

### **Total Attachments: 8**

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PATENT 504798413 REEL: 045067 FRAME: 0448

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U.S. Patent Appln. No. 15/908,236 Attorney Docket No. 102028-1061197 (100900US) Filing Date 02/28/2018 Client Docket No. P42458-US PARTIES TO THE ASSIGNMENT Assignor(s): Sundeep Amirineni 410 Terry Avenue North Seattle, WA 98109-5210 Ron Diamant 410 Terry Avenue North Seattle, WA 98109-5210 Randy Huang 410 Terry Avenue North Seattle, WA 98109-5210 Thomas A. Volpe 410 Terry Avenue North 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 "RESTRUCTURING A MULTI-DIMENSIONAL ARRAY" (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 submission of this executed PATENT ASSIGNMENT for recordation.

ASSIGNOR(S) hereby authorizes and requests ASSIGNEE'S legal representatives, of

U.S. Patent Appln. No. 15/908,236

Attorney Docket No. 102028-1061197 (100900US)

Filing Date 02/28/2018

Client Docket No. P42458-US

Title of Invention: RESTRUCTURING A MULTI-DIMENSIONAL ARRAY

Inventors: Sundeep Amirineni, Ron Diamant, Randy Huang, Thomas A. Volpe

Kilpatrick Townsend & Stockton LLP, associated with Customer No. 107508, to insert in the header above and here in parentheses (U.S. Patent Application No. 15/908,236, filed

02/28/2018) this application's U.S. application 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 Invention 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 issue all letters patent on said Invention to ASSIGNEE. ASSIGNOR(S)

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U.S. Patent Appln. No. 15/908,236

Attorney Docket No. 102028-1061197 (100900US)

Filing Date 02/28/2018

Client Docket No. P42458-US

Title of Invention: RESTRUCTURING A MULTI-DIMENSIONAL ARRAY

Inventors: Sundeep Amirineni, Ron Diamant, Randy Huang, Thomas A. Volpe

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 and enforce proper patent protection for

Page 3 of 8

U.S. Patent Appln. No. 15/908,236

Attorney Docket No. <u>102028-1061197 (100900US)</u>

Filing Date <u>02/28/2018</u>

Client Docket No. P42458-US

Title of Invention: RESTRUCTURING A MULTI-DIMENSIONAL ARRAY

Inventors: Sundeep Amirineni, Ron Diamant, Randy Huang, Thomas A. Volpe

the Invention in all countries. These provisions are binding upon ASSIGNOR's heirs, legal representatives, administrators, and assigns.

U.S. Patent Appln. No. <u>15/908,236</u>	Attorney Docket No. <u>102028-1061197 (100900US)</u>
Filing Date <u>02/28/2018</u>	Client Docket No. <u>P42458-US</u>
Title of Invention: <u>RESTRUCTURING A MULTI-E</u>	DIMENSIONAL ARRAY
Inventors: Sundeep Amirineni, Ron Diamant,	Randy Huang, Thomas A. Volpe
<u>DECLARATION</u> As a below named inventor, I hereby declare	that:
This declaration is directed to:	
igstyle igstyle igstyle the attached application; or	
United States Patent Application i	number filed on; or
PCT International Application nun	nber filed on
The above-identified application was made o	r authorized to be made by me.
I believe that I am the original inventor or an application.	original joint inventor of a claimed Invention in the
I have reviewed and understand the contents	of the above-identified application, and
acknowledge the duty to disclose to the US P	atent & Trademark Office all information known to
me to be material to the patentability as defi	ned in 37 CFR 1.56.
I hereby acknowledge that any willful false st	atement made in this declaration is punishable
under 18 USC 1001 by fine or imprisonment o	of not more than five (5) years, or both.
Sundeep Amirineni	
February 28, 2018	
Date	

Filing Date 02/28/2018	Client Docket No ENSIONAL ARRAY	o. <u>P42458-US</u>
TT' 1 S	ENSIONAL ARRAY	
Title of Invention: <u>RESTRUCTURING A MULTI-DIMI</u>		
Inventors: Sundeep Amirineni, Ron Diamant, Rai	ndy Huang, Thomas A. Volpe	
DECLARATION		
As a below named inventor, I hereby declare that	t:	
This declaration is directed to:		
the attached application; or		
United States Patent Application num	nber filed on	; or
PCT International Application number	r filed on	
The above-identified application was made or au	thorized to be made by me.	
I believe that I am the original inventor or an orig	inal joint inventor of a claimed Inve	ention in the
application.		
I have reviewed and understand the contents of t	the above-identified application, ar	ıd
acknowledge the duty to disclose to the US Pater	nt & Trademark Office all informatio	on known to
me to be material to the patentability as defined	in 37 CFR 1.56.	
I hereby acknowledge that any willful false stater	ment made in this declaration is pur	nishable
under 18 USC 1001 by fine or imprisonment of no	ot more than five (5) years, or both.	
——Docusigned by:  /Kon Diamant/ ——6EE104A43A584D5		
Ron Diamant		
February 28, 2018		
Date		

U.S. Patent Appln. No. <u>15/908,236</u>	Attorney Docket No. <u>102028-1061197 (1009000S</u>
Filing Date <u>02/28/2018</u>	Client Docket No. <u>P42458-US</u>
Title of Invention: <u>RESTRUCTURING A MULTI-I</u>	DIMENSIONAL ARRAY
Inventors: Sundeep Amirineni, Ron Diamant	Randy Huang, Thomas A. Volpe
<u>DECLARATION</u>	
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This declaration is directed to:	
the attached application; or	
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The above-identified application was made o	r authorized to be made by me.
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me to be material to the patentability as defi	ned in 37 CFR 1.56.
I hereby acknowledge that any willful false st under 18 USC 1001 by fine or imprisonment o	atement made in this declaration is punishable of not more than five (5) years, or both.
Docusigned by:  /Kandy truang/D7EEDD6D876F4EC	
Randy Huang	
February 28, 2018	
Date	

**RECORDED: 02/28/2018** 

# PATENT ASSIGNMENT AND DECLARATION (37 CFR 1.63)

U.S. Patent Appln. No. <u>15/908,236</u> Attorn	ney Docket No. <u>102028-1061197 (10090005)</u>
Filing Date <u>02/28/2018</u>	Client Docket No. <u>P42458-US</u>
Title of Invention: RESTRUCTURING A MULTI-DIMENS	IONAL ARRAY
Inventors: Sundeep Amirineni, Ron Diamant, Randy	Huang, Thomas A. Volpe
DECLARATION	
As a below named inventor, I hereby declare that:	
This declaration is directed to:	
the attached application; or	
United States Patent Application number	·; or
PCT International Application number	filed on
The above-identified application was made or author	rized to be made by me.
I believe that I am the original inventor or an original application.	l joint inventor of a claimed Invention in the
I have reviewed and understand the 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 patentability as defined in 3	37 CFR 1.56.
I hereby acknowledge that any willful false statemen under 18 USC 1001 by fine or imprisonment of not m	·
DocuSigned by:  / Shomas a. Volpe/  C439B403822D43D  Thomas A. Volpe	
February 28, 2018	
Date	

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