503396253 07/16/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3442878

SUBMISSION TYPE:		NEW ASSIGNMENT	
NATURE OF CONVEYANCE:		ASSIGNMENT	
CONVEYING PARTY	DATA		
		Name	Execution Date
DUO DING			04/16/2014
SRINIVAS SANIVARA	PU		04/17/2014
LAI-CHING LYDIA SO	1		04/22/2014
JOSEPH CURT PETE	RS		04/17/2014
CARL ALFRED SHISL	.ER		04/17/2014
GARY LYNN FOWLER	7		04/17/2014
THUVAN LE			04/21/2014
KAIWHA PENG			04/21/2014
TAO HOU			04/22/2014
WILSON FAI CHIN			04/21/2014
Street Address: City: State/Country: Postal Code: PROPERTY NUMBEF	REDW CALIF 94065		
Property Typ	е	Number	
Application Number:		14266708	
using a fax number, i Phone: Email: Correspondent Name Address Line 1:	be sent t if provide	(713)228-8778 o the e-mail address first; if that is u d; if that is unsuccessful, it will be s 7132288600 graves@oshaliang.com ROBERT P. LORD 909 FANNIN	
Address Line 2:SUITE 3500Address Line 4:HOUSTON, TEXAS 77010			

ATTORNEY DOCKET NUMBER: 33227/916001

503396253

NAME OF SUBMITTER:	COURTNEY GRAVES		
SIGNATURE:	/Robert P. Lord/		
DATE SIGNED:	07/15/2015		
Total Attachments: 8			
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Assignment – Worldwide

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned individual(s) (referred to herein as the "INVENTOR(S)") hereby assign, transfer, and set over to:

Oracle International Corporation

having the following address:

500 Oracle Parkway Redwood Shores, California 94065

(referred to herein as "COMPANY"), its successors, and assigns, the entire right, title, and interest, worldwide, in and to the invention known by the following title:

METHOD AND APPARATUS FOR DUMMY CELL PLACEMENT MANAGEMENT

for which the undersigned has/have executed an application for patent in the United States of America on or about this same day, together with said patent application, all divisions, continuations, continuations-in-part, reissues, and extensions thereof, and all Letters Patent (domestic and foreign) which may be granted therefor. Such interest represents the entire ownership of said applications and Letters Patent when granted and is to be owned by COMPANY, its successors, and assigns, or their legal representatives, for the full and entire term for which such Letters Patent may be granted or extended, as fully and entirely as the same would have been enjoyed by the INVENTOR(S) if this assignment had not been made.

In addition, the undersigned INVENTOR(S) each hereby agrees:

- 1. To sign and execute any further documents which may be necessary or desirable, lawful, and proper in connection with the prosecution of all applications for patent(s) on the INVENTION in the United States, including without limitation said application and all divisions, continuations, continuations-in-part, amendments thereof, and all interference proceedings associated therewith, or otherwise necessary or desirable to secure the title thereto to COMPANY;
- To execute all papers and documents and to perform all lawful acts which may be necessary in connection with claims to priority or otherwise under the International Convention for the Protection of Industrial Property or similar treaties or agreements;
- 3. To perform all lawful affirmative acts which may be necessary to obtain the grant of a valid and enforceable patent to COMPANY.

The undersigned INVENTOR(S) each hereby authorizes and requests the Commissioner of Patents and Trademarks in the United States to issue any and all Letters Patent resulting from said application, including without limitation any division, continuation, continuation-in-part, or reissue thereof to COMPANY.

The undersigned INVENTOR(S) each hereby grants to the firm of OSHA LIANG LLP the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for the recordation of this document.

> 32615 PATENT TRADEMARK OFFICE



Intellectual Property Law

April 16 201	4 1 st Inventor Signature:	
Date	Print or Type Name:	
	2 nd Inventor Signature:	
Date	Print or Type Name:	
	3rd Inventor Signature:	
Date	Print or Type Name:	Lai-ching Lydia So
	4 th Inventor Signature:	an er en ander de de er en en andere en andere en andere et en de alle andere de set de set andere en andere e
Date	Print or Type Name:	
	5 th Inventor Signature:	18-11-11, 11-11-17, 2-17-14-14-14-14-14-14-14-14-14-14-14-14-14-
Date	Print or Type Name:	Carl Alfred Shisler
	6 th Inventor Signature:	
Date	Print or Type Name:	
	7 th Inventor Signature:	·
Date	Print or Type Name:	Thuvan Le
	8 th Inventor Signature:	
Date	Print or Type Name:	17 1 1 15
	9th Inventor Signature:	
Date	Print or Type Name:	
	10 th Inventor Signature:	
Date	Print or Type Name:	TTTL The Chain

When this Assignment is <u>not</u> filed concurrently with the patent application, the following identifying information may be added <u>after</u> execution:

U.S. Application Serial No.: 14/266,708 Filing Date: April 30, 2014



	1 st Inventor Signature:	
Date	Print or Type Name:	Duo Ding
	2 ^{ne} Inventor Signature:	
Date	2 Inventor Signature: Print or Type Name:	Sriniyas Sanivarapu
4/22/2014		Vili
	3 rd Inventor Signature: <u>\</u>	Lai-ching Lydia So
Date	Print or Type Name;	Ганситер тупна 20
	4 th Inventor Signature:	
Date	Print or Type Name:	Joseph Curt Peters
	5 th Inventor Signature:	
Date	Print or Type Name:	Carl Alfred Shisler
	6 th Inventor Signature:	위 있는 사람이 있는 것은 사람이 있는 것이 있는 것이 있는 것이다. 이 같은 것은 것은 것이 있는 것이 있 같은 것은 것은 것은 것이 있는 것이 있
Date	Print or Type Name:	Gary Lynn Fowler
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Date	7 th Inventor Signature:	Thuyan Le
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Date	Print or Type Name:	Kaiwha Peng
	9 th Inventor Signature:	
Date	Print or Type Name:	Tao Hou
	10 th Inventor Signature:	เข้าของใจ หรือเข้าของใจเข้าของใจเข้าของไข่เข้าจะเป็นเข้ แต่ไของใหม่ในเข้าของใหญ่มีใจเข้าของใจเข้าของไข่เข้า
Date	Print or Type Name:	Wilson Fai Chin
the follo	ssignment is <u>not</u> filed concurrently wing identifying information may be Application Serial No.: 14/266, 70 Filing Date: April 30	r added <u>after</u> execution:)8

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Intellectual Property Law

	1 st Inventor Signature:	
Date	Print or Type Name:	Duo Ding
+0011_17;2014 Date	2 nd Inventor Signature:	Juines Janivergy
Date	Print or Type Name: _	Srinivas Sanivarapu
	3 rd Inventor Signature:	
Date	Print or Type Name: _	Lai-ching Lydia So
4/17/14	4 th Inventor Signature:	Opsigh Cust Pitus
Date	Print or Type Name: _	Joseph Curt Peters
4/17/14	5 th Inventor Signature:	Carl alfred Shih
Date	Print or Type Name:	Carl Affred Shisler
A/17/14	6 th Inventor Signature:	Gan Jymy Forder
Date	Print or Type Name:	Gary Lynn Fowler
	7 th Inventor Signature:	
Date	Print or Type Name: _	Thuvan Le
	8 th Inventor Signature:	
Date	Print or Type Name:	Kaiwha Peng
	9th Inventor Signature:	
Date	Print or Type Name:	
	10 ^a Inventor Signature:	
Date	Print or Type Name:	$W^{*}_{1} \rightarrow E^{-1}_{2} $

When this Assignment is <u>not</u> filed concurrently with the patent application, the following identifying information may be added <u>after</u> execution:

U.S. Application Serial No.: 14/266,708 Filing Date: April 30, 2014

Intellectual Property Law

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	1 st Inventor Signature:	
Date	Print or Type Name:	
	2 nd Inventor Signatare:	
Date	Print or Type Name:	Srinivas Sanivarapu
	3 rd Inventor Signature:	
Date	Print or Type Name:	Lai-ching Lydia So
	4 th Inventor Signature:	
Date	Print or Type Name:	Joseph Curt Peters
	5 th Inventor Signature:	
Date	Print or Type Name:	Carl Alfred Shister
	6 ¹⁰ Inventor Signature:	
Date	Print or Type Name:	Gary Lynn Fowler
April 21st 2014	7 th Inventor Signature:	huvai
Date	Print or Type Name:	Thuyan Le
	8 th Inventor Signature:	
Date	Print or Type Name:	Kaiwha Peng
	9 th Inventor Signature:	
Date	Print or Type Name:	The Lieu
	10 ⁸¹ Inventor Signature:	
Date	Print or Type Name:	Wilson Fai Chin

When this Assignment is <u>not</u> filed concurrently with the patent application, the following identifying information may be added <u>after</u> execution:

> U.S. Application Serial No.: 14/266,708 Filing Date: April 30, 2014

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	1 st Inventor Signature:	
Date	Print or Type Name:	
	2 nd Inventor Signature:	
Date	Print or Type Name:	
	3 rd Inventor Signature:	
Date	Print or Type Name:	The Contract of the Contract o
	4 th Inventor Signature:	
Date	Print or Type Name:	T LOT A DEAL A
	5 th Inventor Signature:	
Date	Print or Type Name:	CI 1 A I Con 1 CI 1 I and
	6 th Inventor Signature:	
Date	Print or Type Name:	Gary Lynn Fowler
	7 th Inventor Signature:	
Datc	Print or Type Name:	Thuyan Le
4-21-2014	8 th Inventor Signature:	Howitha Dent
Date	Print or Type Name:	Kaiwha Perfe
	9 th Inventor Signature:	
Date	Print or Type Name:	Tao Hou
	10 th Inventor Signature:	
Date	Print or Type Name:	

When this Assignment is <u>not</u> filed concurrently with the patent application, the following identifying information may be added <u>after</u> execution:

U.S. Application Serial No.: 14/266,708 Filing Date: April 30, 2014



Intellectual Property Law

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Date Print or Type Name: Duo Ding 2** Inventor Signature:		1 ⁴⁴ Inventor Signature:	an alig shi an
Date Print or Type Name: Strinivas Sanivarapu 3 rd Inventor Signature:	Date	Print or Type Name:	Duo Ding
3 rd Inventor Signature: Date Print or Type Name: Lat-ching Lydia So 4 rd Inventor Signature: Date S rd Inventor Signature: Date Oate S rd Inventor Signature: Date Print or Type Name: Carl Alfred Shisler Oate Print or Type Name: Date Print or Type Name: Date Print or Type Name: Tao Hou Print or Type Name: Date Print or Type Name: Tao Hou Date Print or Type Name: When this Assignment is more filed concurrently with the patent application, the following identifying information may be added <u>diner</u> execution: US. A		2 nd Inventor Signature:	
Date Print or Type Name: Lai-ching Lydia So 4 ¹⁶ Inventor Signature:	Date	Print or Type Name:	Srinivas Sanivarapu
Invertor Signature: Date Print or Type Name: Joate S ^{ab} Inventor Signature: Print or Type Name: Carl Alfred Shisler Bate Print or Type Name: Carl Alfred Shisler Bate Print or Type Name: Date Print or Type Name: Date Print or Type Name: Date Print or Type Name: Mate Print or Type Name: Kaiwha Peng Print or Type Name: When this Assignment Signature: Print or Type Name: Wilson Fai Chin Date Print or Type Name: Wilson Fai Chin Name: Witten this Assignment is to Type Name: <td></td> <td>3rd Inventor Signature:</td> <td></td>		3 rd Inventor Signature:	
Date Print or Type Name: Joseph Curl Peters bate S* Inventor Signature:	Date	uen egen na fer eine eine er 🖓 eine eine eine eine eine eine eine ein	Lai-ching Lydia So
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Date Print or Type Name: Carl Alfred Shisler Date 6 th Inventor Signature: Gary Lyna Fowler Date 7 th Inventor Signature: Gary Lyna Fowler Date 7 th Inventor Signature: Thuvan Le Date Print or Type Name: Thuvan Le Date Print or Type Name: Kaiwha Peng Date Print or Type Name: Kaiwha Peng Uhre Print or Type Name: Tao Hou Uhre Print or Type Name: Tao Hou Date 10 th Inventor Signature: Tao Hou Date Print or Type Name: Tao Hou Date Print or Type Name: Wilson Fai Chin Date Print or Type Name: Wilson Fai Chin Date Print or Type Name: Wilson Fai Chin When this Assignment is up filed concurrently with the patent application, the following identifying information may be added <u>after execution:</u> US. Application Serial No.: 14/266,708		5 th Inventor Signature:	
Date Print or Type Name: Gary Lynn Fowler 7 ^a Inventor Signature: Thuvan Le Date Print or Type Name: Thuvan Le 8 ^a Inventor Signature: Maintain Peng U2 2/20/U 9 ^b Inventor Signature: Date Print or Type Name: Kaiwha Peng U4 2 2/20/U 9 ^b Date Print or Type Name: Tao Hou 10 ^b Inventor Signature: Prao Hou Date Print or Type Name: Wilson Fai Chin Date Print or Type Name: Wilson Fai Chin	Date	la jara juga ataj statu "bijara juto juto je	Carl Alfred Shisler
Date Print or Type Name: Gary Lynn Fowler 7 ^a Inventor Signature: Thuvan Le Date Print or Type Name: Thuvan Le 8 ^a Inventor Signature: Maintain Peng U2 2/20/U 9 ^b Inventor Signature: Date Print or Type Name: Kaiwha Peng U4 2 2/20/U 9 ^b Date Print or Type Name: Tao Hou 10 ^b Inventor Signature: Prao Hou Date Print or Type Name: Wilson Fai Chin Date Print or Type Name: Wilson Fai Chin		6 th Inventor Signature:	[편][1]에 가난 사망 가장에 가장에 가장 가장에 가장 가장에 가장 가장이다. 2][2] 이 가 바람이 있는 것은 이 가장에 가장 이 가장에 가장하는 것이다. 2] 이 가장에 가장에 가장에 가장하는 것이 가장에 가장하는 것이다.
Date 7 ⁿ Inventor Signature; Thuvan Le Print or Type Name: Thuvan Le Date 8 ⁿ Inventor Signature; Ute 9 ⁿ Inventor Signature; Ute 9 ⁿ Inventor Signature; Date 9 ⁿ Inventor Signature; Ute 9 ⁿ Inventor Signature; Date 9 ⁿ Inventor Signature; Date Print or Type Name; Tao Hou 10 ⁿ Inventor Signature; Tao Hou Date Print or Type Name; Wilson Fai Chin Date Print or Type Name; Wilson Fai Chin	Date		Gary Lynn Fowler
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Date Print or Type Name: Kaiwha Peng U 9 th Inventor Signature: Image: Construction of the construction o	Date		Thuvan Le
Date Print or Type Name: Kaiwha Peng U122 9th Inventor Signature: Inventor Signature: Date Print or Type Name; Tao Hou 10th Inventor Signature: Inventor Signature: Date Print or Type Name; Wilson Fai Chin Date Print or Type Name; Wilson Fai Chin When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution: US. Application Serial No.: 14/266,708		8 th Inventor Signature:	ેલ્લી સુકાર કરે કે સ્ટાર્ગ સ્ટા સ્ટાર્ગ સ્ટાર્ગ સ્ટાર્ગ સ્ટાર્ગ સ્ટાર્ગ
Date Print or Type Name; Tao Hou 10 th Inventor Signature;	Date		Kaiwha Peng
Date Print or Type Name: Tao Hou 10 th Inventor Signature:	Alas Isolit	0 th Inventor Signatures	- Ep
10 th Inventor Signature: Print or Type Name: Wilson Fai Chin Wilson Fai Chin Wilson Fai Chin	Date Date	이 같은 것 같이 있다. 가지 않는 것 같은 것 같	Tao Hou
Date Print or Type Name: Wilson Fai Chin Wilson Fai Chin Wilson Fai Chin When this Assignment is not filed concurrently with the patent application, the following identifying information usay be added after execution: U.S. Application Serial Na.: 14/266,703		alvale kashqiyalarik shtribi.	
When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution: U.S. Application Seriel No.: 14/266,708	Date	같은 가장에 가운데 가운데 가운데 가운데 가운데 가운데 이 것이다.	Wilson Fai Chin
the following identifying information may be added <u>after</u> execution: U.S. Application Serial No.: 14/266,708			
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the following identifying information may be added <u>after</u> execution: U.S. Application Serial No.: 14/266,708	가는 것 같은 것으로 가장하는 것이다. 같은 것 같은 것	la an da indirika kata kata kata kata kata kata kata k	
the following identifying information may be added <u>after</u> execution: U.S. Application Serial No.: 14/266,708		াৰ বাৰ সময় সময়ে সাৰ প্ৰথম সাম সাম সাম সাম সাম নাৰ মাৰ মান সাম বাৰ সাম সাম সাম সাম সাম নাৰ মান সাম হাৰ বাৰ সাম সাম সাম সাম	ন্দ্র মৃত মৃথ মৃথ ব্যবহার ব্যবহার পিয়ে ব্যায় হয়। আরম্পি ব্যায় হয় হয় ব্যায় ব্যায ব্যায় ব্যায় ব্
U.S. Application Serial No.: 14/266,708			
	승규는 물건을 받는 것이 전망하는	이 집 말에 집 집 같은 것이 같아. 말 안 만들어 가들게 가들었다.	· 제품에 전문에 전문에 전문에 가운데 제공에 제공에 가운데 가운데 가운데 가운데.
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	tellectual Property Law		

	1 st Inventor Signature:	
Date	Print or Type Name:	
	2 nd Inventor Signature:	
Date	Print or Type Name:	Srinivas Sanivarapu
	3 rd Inventor Signature:	
Date	Print or Type Name:	Lai-ching Lydia So
	4 th Inventor Signature:	
Date	Print or Type Name:	Joseph Curt Peters
	5 th Inventor Signature:	
Date	Print or Type Name:	Carl Alfred Shisler
1977-1971-1971-1971-1971-1971-1971-1971	6 th Inventor Signature:	
Date	Print or Type Name:	Gary Lynn Fowler
	7 th Inventor Signature:	
Date	Print or Type Name:	Thuvan Le
	S th Inventor Signature:	
Date	Print or Type Name:	Kaiwha Peng
	9 th Inventor Signature:	
Date	Print or Type Name:	Tao Hou
Zt April 2014	10 th Inventor Signature:	<u>Show</u>
Date	Print or Type Name:	Wilson Fai Chin

When this Assignment is <u>not</u> filed concurrently with the patent application, the following identifying information may be added <u>after</u> execution:

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RECORDED: 07/16/2015