PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5008729

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|---------------------|----------------|
| GUANGHUA SHU | 03/28/2018 |
| FRANKIE Y. LIU | 04/26/2018 |
| SUWEN YANG | 03/28/2018 |
| ZIAD SALEH SHEHADEH | 03/30/2018 |
| ERIC Y. CHANG | 06/14/2018 |

RECEIVING PARTY DATA

| Name: | ORACLE INTERNATIONAL CORPORATION |
|-------------------|----------------------------------|
| Street Address: | 500 ORACLE PARKWAY |
| Internal Address: | M/S 50P7 |
| City: | REDWOOD CITY |
| State/Country: | CALIFORNIA |
| Postal Code: | 94065 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15940681 |

CORRESPONDENCE DATA

Fax Number: (530)759-1665

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: 530-759-1661

Email: wendy@parklegal.com **Correspondent Name:** A. RICHARD PARK

Address Line 1: PARK, VAUGHAN, FLEMING & DOWLER LLP

Address Line 2: 2820 FIFTH STREET

Address Line 4: DAVIS, CALIFORNIA 95618

| ATTORNEY DOCKET NUMBER: | ORA18-0413 |
|-------------------------|-------------------|
| NAME OF SUBMITTER: | A. RICHARD PARK |
| SIGNATURE: | /A. Richard Park/ |
| DATE SIGNED: | 06/15/2018 |

PATENT REEL: 046097 FRAME: 0847 504961982

Total Attachments: 5 source=ORA18-0413_Assignment_signed#page1.tif source=ORA18-0413_Assignment_signed#page2.tif source=ORA18-0413_Assignment_signed#page3.tif

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PATENT REEL: 046097 FRAME: 0848

CORPORATE ASSIGNMENT

WHEREAS, the undersigned,

Guanghua Shu
501 Island Parkway, Belmont, CA 94002
Frankie Y. Liu
401 Creekside Drive, Palo Alto, CA 94306
Suwen Yang
2133 Rock Street, Mountain View, CA 94943
Ziad Saleh Shehadeh
Eric Y. Chang
1109 Shoreline Drive, San Mateo, CA 94404

hereinafter termed "Inventor(s)", have invented certain new and useful improvements in

INJECTION-LOCKING PLL WITH FREQUENCY DRIFT TRACKING AND DUTY-CYCLE DISTORTION CANCELLATION

| and have | e executed a declaration or oath for an application for a United States patent disclosing and identifying the m: |
|---|---|
| _ | On the day of |
| | Or |
| <u>X</u> | Said application having Application Number 15/940,681 and filed on 29 March 2018; and |
| business desirous and in a Inventor certifica | WHEREAS, Oracle International Corporation, a corporation of the State of California, having a place of s at 500 Oracle Parkway, Mail Stop 5OP7, Redwood City, CA 94065, (hereinafter termed "Assignee"), is of acquiring the entire right, title and interest in and to said application and the invention disclosed therein, and to all embodiments of the invention, heretofore conceived, made or discovered jointly or severally by said r(s) (all collectively hereinafter termed "said invention"), and in and to any and all patents, inventor's ites and other forms of protection (hereinafter termed "patents") thereon granted in the United States and countries. |

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Inventor(s) to have been received in full from said Assignee:

- 1. Said Inventor(s) do hereby sell, assign, transfer and convey unto said Assignee the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply for foreign patents on said invention pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all applications filed and any and all patents granted on said invention in the United States or any foreign country, including each and every application filed and each and every patent granted on any application which is a divisional, substitution, continuation, or continuation-in-part of any of said applications; and (d) in and to each and every reissue or extensions of any of said patents.
- 2. Said Inventor(s) hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and foreign countries. Such cooperation by said Inventor(s) shall include prompt production of pertinent facts and documents, giving of testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (d) for filing and prosecuting applications for reissuance of any said patents; (e) for interference or other priority proceedings involving said invention; and (f) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation

Attorney Docket No. ORA18-0413

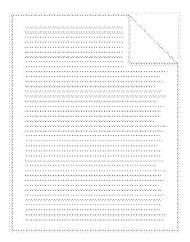
reissues and reexaminations, opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventor(s) in providing such cooperation shall be paid for by said Assignee.

- 3. The terms and covenants of this assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventor(s), their respective heirs, legal representatives and assigns.
- 4. Said Inventor(s) hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, said Inventor(s) have executed and delivered this instrument to said Assignee as of the dates written below.

| Consequent the Charles 2018 | y M; | ar 28, 20 1 8 | |
|-----------------------------|-----------------|----------------------|--|
| Guanghua Shu | Da | ate | |
| 1 Frankie Liu | √ Ar | or 26, 2018 | |
| Frankie Y. Liu | Da | ate | |
| SUWEN Yang | _£ Ma | ar 28, 2018 | |
| Suwen Yang | Da | ate | |
| | M, | ar 30, 2018 | |
| Ziad Saleh Shehadeh | Da | ate | |
| LENG XI. Chang | <u>√</u> Ju | n 14, 2018 | |
| Eric Y. Chang | Da | ate | |

Attorney Docket No. ORA18-0413



ORA18-0413 EchoSign Formal Documents

Adobe Sign Document History

06/14/2018

| Orested: | 03/28/2016 | |
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| Вγ; | Document Support | |
| Status: | Signed | |
| Transaction (D): | CBJCHBCAABAAfCkt9CzUXJPUKir | nBDjN09oHj3K4MBOTse |

"ORA18-0413 EchoSign Formal Documents" History

Document created by Document Support

03/28/2018 - 4:33:50 PM PDT-IP address: 173.8.78.69

Document emailed to Guanghua Shu

for signature

03/28/2018 - 4:36:55 PM PDT

Document emailed to Frankie Liu

for signature

:03/28/20|3 - 4:38:55 PM PDT

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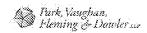
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03/28/2018 - 4:57:18 PM PDT-IP address: 148.87.23:5

Document e-signed by suwen yang

Signature Date: 03/28/2018 - 4:59:00 PM PDT - Time Source: server- IP address: 148.87-23.5



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🖺 Document viewed by Guanghua Shu 03/28/2018 - 5:08:30 PM PDT-1P address: 148:87:23:15 Document e-signed by Guanghua Shu Signature Date: 03/28/2018 - 5:10:30 PM PDT - Time Source: server- IP address: 148:87:23:15 Document Support replaced signer with Eric Y. Chang 03/30/2018 - 9:54:02 AM PDT-IP address: 173.8.78.69 Document emailed to Eric Y. Chang for signature 03/30/2018 - 9:54:02 AM PDT Email sent to bounced and could not be delivered 03/30/2018 - 9:54:27 AM PDT Document Support with Ziad Saleh replaced signer 03/30/2018 - 9:56:10 AM PDT-TP address: 173.8.78.69 Document emailed to Ziad Saleh for signature .03/30/2018 - 9:56:11 AM PDT Email sent to bounced and could not be delivered 03/30/2018 - 9:56:27 AM PDT 🖱 Document viewed by Eric Y. Chang 03/30/2018 - 10:10:18 AM PDT-IP address: 66.249.84.8 Document viewed by Ziad Saleh 03/30/2018 - 1:13:15 PM PDT-IP address: 17,114.192.167 Document e-signed by Ziad Saleh Signature Date: 03/30/2018 - 1:14:57 PM PDT - Time Source: server- IP address: 17:219:7.8 Email sent to Ziad Saleh bounced and could not be delivered 03/30/2018 - 1:15:02 PM PDT Email sent to bounced and could not be delivered 04/06/2018 - 9:06:32 AM PDT 🖺 Document viewed by Eric Y. Chang .04/06/2018 - 9:58:06 AM PDIT-IP address: 66:102.8.131 Email sent to bounced and could not be delivered 04/28/2018 - 10:43:07 AM PDT

🎒 Fark, Vaughan, Fleming & Dowler we

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04/26/2018 - 11:56:35 AM PDT- IP address: 66:249:84:6

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Someont e-signed by Frankie Liu

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suwen yang Document Support

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RECORDED: 06/15/2018