PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT2844270

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------------------|----------------|
| SHAHRAM GHANDEHARIZADEH | 03/27/2014 |
| JASON YAP | 03/27/2014 |

RECEIVING PARTY DATA

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| City: | LOS ANGELES |
| State/Country: | CALIFORNIA |
| Postal Code: | 90015 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13927027 |

CORRESPONDENCE DATA

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Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via

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| ATTORNEY DOCKET NUMBER: | 028080-0885 |
|-------------------------|-----------------|
| NAME OF SUBMITTER: | MARC E. BROWN |
| SIGNATURE: | /Marc E. Brown/ |
| DATE SIGNED: | 05/06/2014 |

Total Attachments: 4

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REEL: 032833 FRAME: 0229

PATENT

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502744814 03/28/2014

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT2791410

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------------------|----------------|
| SHAHRAM GHANDEHARIZADEH | 03/27/2014 |
| JASON YAP | 03/27/2014 |

RECEIVING PARTY DATA

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|-------------------------|-----------------|
| NAME OF SUBMITTER: | MARC E. BROWN |
| SIGNATURE: | /Marc E. Brown/ |
| DATE SIGNED: | 03/28/2014 |

Total Attachments: 2

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PATENT REEL: 032833 FRAME: 0230 13/927,027

028080-0885 USC 12-200A

ASSIGNMENT

(Joint Inventors)

WHEREAS, we, Shahram Ghandeharizadeh and Jason Yap ("ASSIGNORS") have invented "PREVENTING RACE CONDITION FROM CAUSING STALE DATA ITEMS IN CACHE" ("Invention") for which an application for patent ("Application") has been filed in the United States, Application No. 13/927,027, filed June 25, 2013; which claims priority to and incorporates by reference United States Provisional Application No. 61/669,257, filed July 9, 2012;

WHEREAS, we are the joint inventors of the Invention;

WHEREAS, University of Southern California, (ASSIGNEE) is a corporation organized and existing under the laws of California having a place of business at USC Stevens Center for Innovation, 1150 South Olive Street, Suite 2300, Los Angeles, California 90015;

WHEREAS, ASSIGNEE desires to acquire the entire right, title and interest in and to the Invention and Application and to all patents based on the Application;

NOW, THEREFORE, for valuable consideration, the receipt and legal sufficiency of which ASSIGNORS acknowledge, ASSIGNORS have and hereby do assign and transfer to ASSIGNEE, its successors and assigns, the entire right, title and interest in and to:

- 1. The Invention:
- 2. The Application;
- 3. All applications based on or claiming priority from the Application, including all divisionals and continuations ("Application Family");
- 4. All patents which may be granted on the Invention, Application and Application Family by the United States of America, its territories and possessions, and by all foreign countries, including all priority rights and all reissues thereof ("Patents"); and
- 5. The right to sue for past infringement of the Invention, Application, Application Family and Patents.

ASSIGNORS agree, at the request of ASSIGNEE, to sign any and all papers reasonably needed to file and prosecute the Application and Application Family, to obtain the Patents, and to perfect and vest in ASSIGNEE the entire right, title and interest in the Invention, Application, Application Family and Patents. ASSIGNORS also agree to provide assistance that is reasonably needed to prepare and prosecute the Application and Application Family.

ASSIGNORS authorize and empower ASSIGNEE, its successors and assigns, to apply for and obtain, in its own name, the Application, Application Family and Patents before competent International Authorities, including the World Intellectual Property Organization and

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in any and all foreign countries in which applications for patents can be made or patents obtained. Dated: 3/37 2014 Address: 3220 Barbydell Drive Los Angeles, California 90064 I certify that I am over the age of 18 and that the individual named above signed this document in my presence. 9546 RUENET AVENUE Witness Address (Print or Type) Dated: 03/27, 2014 Namě: JASON YAP Address: 28833 Indian Valley Road Rancho Palos Verdes, California 90275

in my presence.

I certify that I am over the age of 18 and that the individual named above signed this document

Signature of Vitness

Print) Name

Print) Name

Signature of Vitness

Ph. W. 27-16 Ph. USC. S Deph

Sh. 370. Lox Program

CA 90089. USA

Witness Address (Print or Type)



UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

April 02, 2014

PTAS

MARC E. BROWN
MCDERMOTT WILL & EMERY LLP
2049 CENTURY PARK EAST, SUITE 3800
LOS ANGELES, CA 90067



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United States Patent and Trademark Office Notice of Non-Recordation of an Assignment Document

The enclosed document has been examined and found non-recordable by the Assignment Recordation Branch of the U.S. Patent and Trademark Office. The reason(s) for non-recordation are stated below:

1. The patent assignment documents missing. refile online

Documents being resubmitted for recordation must reflect the corrected information to be recorded, the Document ID number referenced above and all pages from this submitted document. The original date of filing of this assignment document will be maintained if resubmitted with the appropriate correction(s) by Monday, June 2, 2014, as outlined under 37 CFR 3.51. The resubmitted document must include a stamp with the official date of receipt under 37 CFR 3. Applicants may use the certified procedures under 37 CFR 1.8 or 1.10 for resubmission of the returned papers if they desire to have the benefit of the date of deposit in the United States Postal Service.

Send documents to: U.S. Patent and Trademark Office, Mail Stop: Assignment Recordation Branch, P.O. BOX 1450, Alexandria, VA 22313. If you have any questions regarding this notice, you may contact the Assignment Recordation Branch at 571-272-3350.

MARY BENTON
ASSIGNMENT RECORDATION BRANCH
PUBLIC RECORDS DIVISION

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