506418043 12/22/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6464800

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

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------------------|----------------|
| RICARDO A. ZILLERUELO-RAMOS | 04/21/2016 |
| HERNAN ENRIQUE ARROYO GARCIA | 04/06/2016 |
| JOE FRISBIE | 04/28/2016 |
| GASTON L'HUILLIER | 04/22/2016 |
| FRANCISCO JOSE LARRAIN | 01/31/2016 |

RECEIVING PARTY DATA

| Name: | GROUPON, INC. |
|-------------------|-------------------------|
| Street Address: | 600 WEST CHICAGO AVENUE |
| Internal Address: | SUITE 620 |
| City: | CHICAGO |
| State/Country: | ILLINOIS |
| Postal Code: | 60654 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 16804788 |

CORRESPONDENCE DATA

Fax Number: (704)444-1111

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: 704-444-1000

Email: patent-mail@alston.com **Correspondent Name:** ALSTON & BIRD LLP

101 S TRYON ST, SUITE 4000 Address Line 1: Address Line 2: BANK OF AMERICA PLAZA

Address Line 4: CHARLOTTE, NORTH CAROLINA 28280-4000

| ATTORNEY DOCKET NUMBER: | 058407/542605 |
|-------------------------|----------------------|
| NAME OF SUBMITTER: | BRIAN C. ELLSWORTH |
| SIGNATURE: | /Brian C. Ellsworth/ |
| DATE SIGNED: | 12/22/2020 |

Total Attachments: 10 source=542605 Assignment#page1.tif source=542605 Assignment#page2.tif source=542605 Assignment#page3.tif source=542605 Assignment#page4.tif source=542605 Assignment#page5.tif source=542605 Assignment#page6.tif source=542605 Assignment#page7.tif source=542605 Assignment#page8.tif source=542605 Assignment#page9.tif source=542605 Assignment#page9.tif source=542605 Assignment#page9.tif

DECLARATION AND ASSIGNMENT FOR PATENT AND DESIGN APPLICATIONS

| Title of | Grank Based Communication of Data Based |
|-----------|---|
| Invention | Graph-Based Compression of Data Records |

As the below named inventor, I, hereinafter referred to as the undersigned, hereby declare that:

| This d | eclaration is directed to: |
|-------------|--|
| | the attached application, or |
| \boxtimes | United States Application or PCT International Application No. <u>14/727,591</u> , filed on <u>6/1/2015</u> ; |
| \boxtimes | Application claims priority from Application No. <u>62/017,158</u> , filed <u>6/25/2014</u> , all applications listed above being hereinafter referred to as the "application(s)"; |

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

Whereas, I have invented certain new and useful improvements in the application identified above; and

Whereas.

GROUPON, INC.

600 West Chicago Avenue, Suite 620 Chicago, IL 60654

hereinafter referred to as Assignee, is desirous of acquiring the entire right, title, and interest in and to said invention as described in the application identified above, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

Now, therefore, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned has sold and assigned, and by these presents hereby sells

Page 1 of 2

This Assignment is deemed to be effective at least as early as the earliest priority date.

| LEGAL NAME OF INVENTOR | | | |
|-----------------------------|--------------------|--|------|
| Ricardo A. Zirleruelo-Ramos | (Signature) | Date: 04 2 \ | 2016 |
| Witness | <u>G</u> A Witr | STON L'HUILLIER ness Name (Printed) | : |
| Witness | Witr | ness Name (Printed) | |

DECLARATION AND ASSIGNMENT FOR PATENT AND DESIGN APPLICATIONS

| Title of Invention GRAPH-BASED COMPRESSION OF DATA RECORDS | |
|--|--|
|--|--|

As the below named inventor, I, hereinafter referred to as the undersigned, hereby declare that:

This declaration is directed to:

the attached application, or
United States Application or PCT International Application No. 14/727,591 filed
6/1/2015;
Application claims priority to 62/017,158 filed 6/25/2014, all applications listed above being hereinafter referred to as the "application(s)";

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

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Whereas, I have invented certain new and useful improvements in the application identified above; and

Whereas,

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hereinafter referred to as Assignee, is desirous of acquiring the entire right, title, and interest in and to said invention as described in the application identified above, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

This Assignment is deemed to be effective at least as early as the earliest priority date.

LEGAL NAME OF INVENTOR

Hernan Enrique Arroyo Garcia (Signature)

Date: $\frac{4/6/2016}{}$

MANTIN PARECLOST Witness

MANTIN PAR EUCS
Witness Name (Printed)

DECLARATION AND ASSIGNMENT FOR PATENT AND DESIGN APPLICATIONS

| Title of | GRAPH-BASED COMPRESSION OF DATA RECORDS |
|-----------|---|
| Invention | |

As the below named inventor, I, hereinafter referred to as the undersigned, hereby declare that:

| This d | eclaration is directed to: |
|-------------|--|
| | the attached application, or United States Application or PCT International Application No. <u>14/727,591</u> , filed on <u>June</u> |
| \boxtimes | 1, 2015; Application claims priority from U.S. Application No. 62/017,158, filed June 25, 2014, all applications listed above being hereinafter referred to as the "application(s)"; |

The above-identified application was made or authorized to be made by me.

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Now, therefore, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned has sold and assigned, and by these presents hereby sells

This Assignment is deemed to be effective at least as early as the earliest priority date.

LEGAL NAME OF INVENTOR

| Inventor Joe Frisbie | (Signature) | Date: <u>4/28/2016</u> | • |
|----------------------|-------------|------------------------|---|
| Witness | | Witness Name (Printed) | |
| Witness | _ | Witness Name (Printed) | |

DECLARATION AND ASSIGNMENT FOR PATENT AND DESIGN APPLICATIONS

| Title of | |
|--------------|---|
| 1 | Graph-Based Compression of Data Records |
| Invention | Graph Basta Compression of Bam Revolus |
| ************ | |

As the below named inventor, I, hereinafter referred to as the undersigned, hereby declare that:

| This declaration is directed to: | | | |
|----------------------------------|---|--|--|
| | the attached application, or | | |
| \boxtimes | United States Application or PCT International Application No. 14/727,591, filed or | | |
| | <u>6/1/2015;</u> | | |
| \boxtimes | Application claims priority from Application No. 62/017,158, filed 6/25/2014, all | | |
| | applications listed above being hereinafter referred to as the "application(s)"; | | |

The above-identified application was made or authorized to be made by me.

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Page 1 of 2

This Assignment is deemed to be effective at least as early as the earliest priority date.

LEGAL NAME OF INVENTOR

(Signature)

Date: 04/22/2016

Ricardo Zilleruelo

Witness Name (Printed)

Witness Nar

Witness

Gaston L'Huillier

DECLARATION AND ASSIGNMENT FOR PATENT AND DESIGN APPLICATIONS

| Title of Invention | GRAPH-BASED COMPRESSION OF DATA RECORDS | | |
|--|---|--|--|
| As the below named inventor, I, hereinafter referred to as the undersigned, hereby declare that: | | | |

This declaration is directed to:

the attached application, or
United States Application or PCT International Application No. 14/727,591 filed
6/1/2015;
Application claims priority to 62/017,158 filed 6/25/2014, all applications listed above being hereinafter referred to as the "application(s)";

The above-identified application was made or authorized to be made by me.

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Whereas, I have invented certain new and useful improvements in the application identified above; and

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This Assignment is deemed to be effective at least as early as the earliest priority date.

| LEGAL NAME OF INVENTOR | (Signature) Date: |
|---------------------------------|------------------------|
| Inventor Francisco Jose Larrain | |
| Witness | Witness Name (Printed) |
| Witness | Witness Name (Printed) |

PATENT REEL: 054729 FRAME: 0589

RECORDED: 12/22/2020