

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5770799

|   |  |
|---|--|
| <b>SUBMISSION TYPE:</b>   | CORRECTIVE ASSIGNMENT  |
| <b>NATURE OF CONVEYANCE:</b>  | Corrective Assignment to correct the THE SPELLING OF INVENTOR AMNON ILAN'S NAME previously recorded on Reel 041319 Frame 0024. Assignor(s) hereby confirms the CORRECTION OF AMNON IIAN TO AMNON ILAN. |
| <b>CONVEYING PARTY DATA</b>   |  |
| <b>Name</b>   | <b>Execution Date</b>  |
| MICHAEL TSIRKIN   | 02/15/2017   |
| AMNON ILAN  | 01/25/2017   |
| <b>RECEIVING PARTY DATA</b>   |  |
| <b>Name:</b>  | RED HAT ISRAEL, LTD.   |
| <b>Street Address:</b>  | 34 JERUSALEM ROAD  |
| <b>City:</b>  | RAANANA  |
| <b>State/Country:</b>   | ISRAEL   |
| <b>Postal Code:</b>   | 43501  |
| <b>PROPERTY NUMBERS Total: 1</b>  |  |
| <b>Property Type</b>  | <b>Number</b>  |
| <b>Application Number:</b>  | 15435402   |
| <b>CORRESPONDENCE DATA</b>  |  |
| <b>Fax Number:</b>  | (973)597-2400  |
| <i>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.</i> |  |
| <b>Phone:</b>   | 9735972500   |
| <b>Email:</b>   | lkirton@lowenstein.com   |
| <b>Correspondent Name:</b>  | LOWENSTEIN SANDLER LLP   |
| <b>Address Line 1:</b>  | PATENT DOCKET ADMINISTRATOR  |
| <b>Address Line 2:</b>  | ONE LOWENSTEIN DRIVE   |
| <b>Address Line 4:</b>  | ROSELAND, NEW JERSEY 07068   |
| <b>ATTORNEY DOCKET NUMBER:</b>  | 08671.484 (L0484)  |
| <b>NAME OF SUBMITTER:</b>   | AEREE KO   |
| <b>SIGNATURE:</b>   | /Aeree Ko/   |
| <b>DATE SIGNED:</b>   | 10/15/2019   |
| <b>Total Attachments: 5</b>   |  |
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**PATENT**

**REEL: 050728 FRAME: 0644**

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4283735

|   |                             |
|---|-----------------------------|
| <b>SUBMISSION TYPE:</b>   | NEW ASSIGNMENT              |
| <b>NATURE OF CONVEYANCE:</b>  | ASSIGNMENT                  |
| <b>CONVEYING PARTY DATA</b>   |                             |
| <b>Name</b>   | <b>Execution Date</b>       |
| MICHAEL TSIRKIN   | 02/15/2017                  |
| AMNON IAN   | 01/25/2017                  |
| <b>RECEIVING PARTY DATA</b>   |                             |
| <b>Name:</b>  | RED HAT ISRAEL, LTD.        |
| <b>Street Address:</b>  | 34 JERUSALEM ROAD           |
| <b>City:</b>  | RAANANA                     |
| <b>State/Country:</b>   | ISRAEL                      |
| <b>Postal Code:</b>   | 43501                       |
| <b>PROPERTY NUMBERS Total: 1</b>  |                             |
| <b>Property Type</b>  | <b>Number</b>               |
| Application Number:   | 15435402                    |
| <b>CORRESPONDENCE DATA</b>  |                             |
| <b>Fax Number:</b>  | (650)433-5609               |
| <i>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.</i> |                             |
| <b>Phone:</b>   | 650.433.5720                |
| <b>Email:</b>   | srocketts@lowenstein.com    |
| <b>Correspondent Name:</b>  | MARINA PORTNOVA             |
| <b>Address Line 1:</b>  | 390 LYTTON AVENUE           |
| <b>Address Line 2:</b>  | LOWENSTEIN SANDLER LLP      |
| <b>Address Line 4:</b>  | PALO ALTO, CALIFORNIA 94301 |
| <b>ATTORNEY DOCKET NUMBER:</b>  | 08671.484 (L0484)           |
| <b>NAME OF SUBMITTER:</b>   | MARINA PORTNOVA             |
| <b>SIGNATURE:</b>   | /Marina Portnova/           |
| <b>DATE SIGNED:</b>   | 02/21/2017                  |
| <b>Total Attachments: 4</b>   |                             |
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| source=08671_484_L0484_Assignment_Ilan#page2.tif  |                             |

**DECLARATION (37 CFR 1.63) AND ASSIGNMENT FOR UTILITY OR DESIGN APPLICATION  
USING AN APPLICATION DATA SHEET (37 CFR 1.76)**

|  |   |
|--|---|
| <b>Title of<br/>Invention</b>  | <b>SECURE ZERO-COPY PACKET FORWARDING</b> |
| <p>This declaration and assignment is directed to:</p> <p><input checked="" type="checkbox"/> The attached application, or</p> <p><input type="checkbox"/> United States application or PCT international application number _____<br/>filed on _____.</p>   |   |
| <p><b>DECLARATION</b></p> <p>As a below named inventor, I hereby declare that:</p> <p>The above-identified application was made or authorized to be made by me.</p> <p>I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</p> <p>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.</p>   |   |
| <p><b>ASSIGNMENT</b></p> <p>For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the undersigned, hereby sell, assign, and transfer to <u>Red Hat Israel, Ltd.</u></p> <p>a <u>corporation</u> of <u>Israel</u></p> <p>(Type of Assignee: e.g., corporation, company, partnership, university, etc.)</p> <p>having a principal place of business at <u>34 Jerusalem Road, Raanana, Israel 43501</u></p> <p>("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the above identified application and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States</p> |   |

and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said application;


agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, at the expense of said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

LEGAL NAME OF INVENTOR

Inventor: Michael Tsirkin

Date: Feb 15, 2017

Signature: 

LEGAL NAME OF INVENTOR

Inventor: Amnon Ilan

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form.  
Use an additional PTO/SB/AIA01 form for each additional inventor.

**DECLARATION (37 CFR 1.63) AND ASSIGNMENT FOR UTILITY OR DESIGN APPLICATION  
USING AN APPLICATION DATA SHEET (37 CFR 1.76)**

|  |                                    |
|--|------------------------------------|
| <b>Title of<br/>Invention</b>  | SECURE ZERO-COPY PACKET FORWARDING |
| <p>This declaration and assignment is directed to:</p> <p style="margin-left: 40px;"> <input checked="" type="checkbox"/> The attached application, or<br/> <input type="checkbox"/> United States application or PCT international application number _____<br/>             filed on _____.           </p>   |                                    |
| <p><b>DECLARATION</b></p> <p>As a below named inventor, I hereby declare that:</p> <p style="margin-left: 40px;">The above-identified application was made or authorized to be made by me.</p> <p style="margin-left: 40px;">I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</p> <p style="margin-left: 40px;">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.</p>  |                                    |
| <p><b>ASSIGNMENT</b></p> <p>For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the undersigned, hereby sell, assign, and transfer to <u>Red Hat Israel, Ltd.</u></p> <p>a _____ corporation of _____ Israel _____</p> <p><small>(Type of Assignee: e.g., corporation, company, partnership, university, etc.)</small></p> <p>having a principal place of business at <u>34 Jerusalem Road, Raanana, Israel 43501</u>,</p> <p>("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the above identified application and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States</p> |                                    |

and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, at the expense of said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

LEGAL NAME OF INVENTOR

Inventor: \_\_\_\_\_ Michael Tsirkin \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_

LEGAL NAME OF INVENTOR

Inventor: \_\_\_\_\_ Amnon Ilan \_\_\_\_\_ Date: 28.1.17

Signature: \_\_\_\_\_ 

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form.  
Use an additional PTO/SB/AIA01 form for each additional inventor.