505164926 10/29/2018 PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | | NEW ASSIGNMENT | | |
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| NATURE OF CONVEYANCE: | | ASSIGNMENT | | |
| CONVEYING PARTY DA | TA | | | |
| | | Name | | Execution Date |
| HARKEERAT SINGH BE | DI | | | 10/24/2018 |
| DONNEVAN SCOTT YE | AGER | | | 10/25/2018 |
| DEREK SHIELL | | | | 10/24/2018 |
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| Property Type | | Number | | |
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ASSIGNMENT

WHEREAS I, a below named inventor, have made a new and useful invention described in a patent application entitled:

ASYNCHRONOUS TRACKING FOR HIGH-FREQUENCY AND HIGH-VOLUME STORAGE

for which I executed an application for United States Letters Patent filed in the U.S. Patent and Trademark Office ("USPTO") herewith, and/or being identified in the USPTO by Application No. 16/173,978 filed October 29, 2018 and

WHEREAS, Verizon Digital Media Services Inc., a corporation of California, whose post office address is 22000 AOL Way, Dulles, VA 20166 (hereinafter referred to as Assignee), is desirous of securing and memorializing its entire right, title, and interest in and to this invention in all countries throughout the world, and in and to any provisional or nonprovisional applications for United States Letters Patent on this invention and any Letters Patent to be issued upon this application or any application claiming priority to this application;

NOW THEREFORE, be it known that, for good and valuable consideration, the receipt of which from Assignee is hereby acknowledged, I have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, my entire right, title, and interest in and to this invention, all nonprovisional applications, divisions, and continuations thereof, and all Letters Patent of the United States which may be granted thereon, and all reissues thereof, and all rights to claim priority on the basis of the above application(s) and/or Letters Patent, and all applications for Letters Patent which may hereafter be filed for this invention in any foreign country and all Letters Patent which may be granted on this invention in any foreign country, and all extensions, renewals, and reissues thereof; and I hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent for this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment;

AND, I HEREBY covenant that I have the full right to convey the interest assigned by this Assignment, and I have not executed and will not execute any agreement in conflict with this Assignment;

AND, I HEREBY authorize the Assignee (or its designee) to apply for patent (or similar legal protection) in its own name if desired, in any and all countries;

AND, I HEREBY further covenant and agree that I will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to us respecting this invention, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee, its successors or assigns, execute all nonprovisional, divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid Assignee, its successors and assigns, to obtain and enforce proper patent protection for this

Page 1 of 2

PATENT REEL: 047344 FRAME: 0526 invention in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

IN TESTIMONY WHEREOF, I have hereunto set my hands.

| Name: | Harkeerat Singh Bedi | |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Address: | 3230 Overland Avenue #132 | |
| | Los Angeles, CA 90034 | |
| | USA | |
| Signed: | <u> </u> | |
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| × . | Anderson Island, WA 98303 USA | |
| Signed: | _ for the for the second secon | entra anti- |
| Date: | | 7-8 |
| Name: | Derek Shiell | |
| Address: | 841 10th Street | |
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| | USA | |
| Signed: | DUUU | |
| Date: | 10/2 × /1& | |
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| | USA | |
| Signed: | Hazen | · |
| Date: | 10/22/18 | |
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