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| <b>PATENT ASSIGNMENT COVER SHEET</b> |
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT6178047

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|---|---|
| <b>SUBMISSION TYPE:</b>   | CORRECTIVE ASSIGNMENT   |
| <b>NATURE OF CONVEYANCE:</b>  | Corrective Assignment to correct the RECEIVING PARTY NAME previously recorded on Reel 048547 Frame 0882. Assignor(s) hereby confirms the ASSIGNMENT OF ASSIGNOR'S INTEREST. |
| <b>CONVEYING PARTY DATA</b>   |   |
| <b>Name</b>   | <b>Execution Date</b>   |
| TAKAKI MATSUSHITA   | 01/31/2019  |
| TOMOHIRO KAWAGUCHI  | 02/08/2019  |
| KAZUEI HIRONAKA   | 01/31/2019  |
| <b>RECEIVING PARTY DATA</b>   |   |
| <b>Name:</b>  | HITACHI, LTD.   |
| <b>Street Address:</b>  | 6-6, MARUNOUCHI 1-CHOME   |
| <b>Internal Address:</b>  | CHIYODA-KU  |
| <b>City:</b>  | TOKYO   |
| <b>State/Country:</b>   | JAPAN   |
| <b>Postal Code:</b>   | 100-8280  |
| <b>PROPERTY NUMBERS Total: 1</b>  |   |
| <b>Property Type</b>  | <b>Number</b>   |
| <b>Application Number:</b>  | 16295766  |
| <b>CORRESPONDENCE DATA</b>  |   |
| <b>Fax Number:</b>  | (215)568-6499   |
| <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>   | 2155686400  |
| <b>Email:</b>   | lgivigliano@vklaw.com   |
| <b>Correspondent Name:</b>  | VOLPE AND KOENIG P.C.   |
| <b>Address Line 1:</b>  | 30 SOUTH 17TH STREET  |
| <b>Address Line 2:</b>  | SUITE 1800  |
| <b>Address Line 4:</b>  | PHILADELPHIA, PENNSYLVANIA 19103  |
| <b>ATTORNEY DOCKET NUMBER:</b>  | HITACHI19-341800157US01   |
| <b>NAME OF SUBMITTER:</b>   | GERALD B. HALT, JR.   |
| <b>SIGNATURE:</b>   | /Gerald B. Halt, Jr./   |
| <b>DATE SIGNED:</b>   | 06/30/2020  |
| <b>Total Attachments: 6</b>   |   |

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**UNITED STATES PATENT AND TRADEMARK OFFICE**

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

MARCH 11, 2019

PTAS

VOLPE AND KOENIG, P.C.  
30 SOUTH 17TH STREET, 18TH FLOOR  
PHILADELPHIA, PA 19103

**505365605**

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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RECORDATION DATE: 03/08/2019

REEL/FRAME: 048547/0882  
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

DOCKET NUMBER: HITACHI19-341800157US01

ASSIGNOR:

MATSUSHITA, TAKAKI

DOC DATE: 01/31/2019

ASSIGNOR:

KAWAGUCHI, TOMOHIRO

DOC DATE: 02/08/2019

ASSIGNOR:

HIRONAKA, KAZUEI

DOC DATE: 01/31/2019

ASSIGNEE:

~~HITACHI LTD.~~ HITACHI, LTD.  
6-6, MARUNOUCHI 1-CHOME  
CHIYODA-KU  
TOKYO, JAPAN 100-8280

APPLICATION NUMBER: 16295766

FILING DATE:

PATENT NUMBER:

ISSUE DATE:

TITLE: STORAGE CONTROLLER AND STORAGE CONTROL METHOD

ASSIGNMENT RECORDATION BRANCH  
PUBLIC RECORDS DIVISION

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT5412397

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|---|----------------------------------|
| <b>SUBMISSION TYPE:</b>   | NEW ASSIGNMENT                   |
| <b>NATURE OF CONVEYANCE:</b>  | ASSIGNMENT                       |
| <b>CONVEYING PARTY DATA</b>   |                                  |
| <b>Name</b>   | <b>Execution Date</b>            |
| TAKAKI MATSUSHITA   | 01/31/2019                       |
| TOMOHIRO KAWAGUCHI  | 02/08/2019                       |
| KAZUEI HIRONAKA   | 01/31/2019                       |
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| <b>ATTORNEY DOCKET NUMBER:</b>  | HITACHI19-341800157US01          |
| <b>NAME OF SUBMITTER:</b>   | GERALD B. HALT, JR.              |
| <b>SIGNATURE:</b>   | /Gerald B. Halt, Jr./            |
| <b>DATE SIGNED:</b>   | 03/08/2019                       |
| <b>Total Attachments: 3</b>   |                                  |
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**ASSIGNMENT**  
( 譲 渡 証 )

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by Hitachi, Ltd.  
a corporation organized under the laws of Japan,  
located at 6-6, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan  
receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi, Ltd.  
its successor and assigns, all my right, title and interest, in and for the United States of America, in and to

**STORAGE CONTROLLER AND STORAGE CONTROL METHOD**

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted,  
to be held and enjoyed by said Hitachi, Ltd.  
its successor, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi, Ltd.

Signed on the date(s) indicated aside our signatures:

INVENTOR(S)  
( 発 明 者 フ ル ネ ー ム サ イ ン )

Date Signed  
( 署 名 日 )

1) Takaki Matsushita Takaki MATSUSHITA

January 31, 2019

2) \_\_\_\_\_ Tomohiro KAWAGUCHI

3) \_\_\_\_\_ Kazuei HIRONAKA

# ASSIGNMENT

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a corporation organized under the laws of Japan,  
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## STORAGE CONTROLLER AND STORAGE CONTROL METHOD

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to be held and enjoyed by said Hitachi, Ltd.  
its successor, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

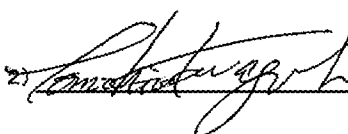
And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi, Ltd.

Signed on the date(s) indicated aside our signatures:

INVENTOR(S)  
(発明者フルネームサイン)

Date Signed  
(署名日)

1) \_\_\_\_\_ Takaki MATSUSHITA \_\_\_\_\_

2)  \_\_\_\_\_ Tomohiro KAWAGUCHI \_\_\_\_\_

\_\_\_\_\_ 2/8/2019 \_\_\_\_\_

3) \_\_\_\_\_ Kazuei HIRONAKA \_\_\_\_\_

**ASSIGNMENT**  
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to be held and enjoyed by said Hitachi, Ltd.  
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INVENTOR(S)  
(発明者フルネームサイン)

Date Signed  
(署名日)

1) Takaki MATSUSHITA \_\_\_\_\_

2) Tomohiro KAWAGUCHI \_\_\_\_\_

3) Kazuei HIRONAKA Kazuei HIRONAKA January 31th, 2019