501923461 05/16/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------|----------------|
| Yunaldi Yulizar | 05/09/2012 |
| Akhila Tadinada | 05/14/2012 |

RECEIVING PARTY DATA

| Name: | Seagate Technology LLC |
|-----------------|------------------------------|
| Street Address: | 10200 South DeAnza Boulevard |
| City: | Cupertino |
| State/Country: | CALIFORNIA |
| Postal Code: | 95014 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13473435 |

CORRESPONDENCE DATA

 Fax Number:
 (952)854-2722

 Phone:
 952-854-2700

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 tdotter@hfiplaw.com

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

Mail.

Correspondent Name: Hollingsworth & Funk
Address Line 1: 8500 Normandale Lake Blvd.

Address Line 2: Suite 320

Address Line 4: Minneapolis, MINNESOTA 55437

| ATTORNEY DOCKET NUMBER: | STX.069.A1 |
|-------------------------|-------------------|
| NAME OF SURMITTER: | William B. Ashley |

Total Attachments: 4

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> PATENT REEL: 028221 FRAME: 0469

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ASSIGNMENT

Seagate Docket No.: STL17069.00US Atty. Docket No.:

STX.069.A1

WHEREAS, I/we Yunaldi Yulizar of 1874 Omega Drive, Shakopee, MN 55379; and Akhila Tadinada of 6701 W. 106th Street, Apt.216, Bloomington, MN 55437, are the inventor(s) of an invention entitled LOGGING DISK RECOVERY OPERATIONS IN A NON-VOLATILE SOLID-STATE MEMORY CACHE that is the subject matter of: (check all that apply)

| П | a provisional application for Letters Patent which is id | lentifiable in the Unite | od States Patent and Trademark Office |
|-------------|----------------------------------------------------------|--------------------------|---------------------------------------|
| | by Application No filed on | | , d Glates Falent and Frademan Office |
| \boxtimes | an application for Letters Patent which is identifiable | in the United States F | Patent and Trademark Office by |
| | Application Nofiled on | and/or executed or | n even date herewith: and |
| | an international application for Letters Patent filed pu | rsuant to the Patent (| Cooperation Treaty which is |
| | identifiable in the United States Receiving Office by | Application No | filed on |
| | : and/or executed on even | date herewith: | |

WHEREAS, Seagate Technology LLC, a limited liability company organized and existing under the laws of the State of Delaware and the United States of America, and having offices at 10200 South DeAnza Boulevard, Cupertino, California, 95014 USA, ("Assignee") is desirous of acquiring the entire right, title and interest in and to the invention, the applications, and any and all Letters Patent or similar foreign or domestic legal protection;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, I/we transfer to Assignee, its successors and assigns, my/our entire right, title and interest in and to the invention, the above-identified applications, all provisional applications from which any of the aboveidentified applications claim priority, corresponding domestic and foreign applications, any continuation, division, renewal, or substitute for the applications, all Letters Patent, any reissue, re-examination, or similar legal protection issuing related to the Letters Patent, and all rights and benefits under any applicable treaty or convention; and I/we authorize the Director of the United States Patent and Trademark Office or foreign equivalent to issue the Letters Patent or similar legal protection to the Assignee.

I/We authorize the Assignee, its successors and assigns, to insert in this instrument the filing date(s) and application numbers when ascertained. I/We further authorize the Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent or similar legal protection, in its own name if desired, in any and all foreign countries and appoint Assignee the common representative in the above identified international application and any international application for the invention.

I/We represent to the Assignee, its successors and assigns, that I/we have not and shall not execute any writing or do any act whatsoever conflicting with this Assignment. I/We, my/our executors or administrators, will at any time upon request, without additional consideration, but at the expense of the Assignee, its successors and assigns, execute and deliver to Assignee or its legal representatives such additional writings and do such additional acts as the Assignee, its successors and assigns, may deem desirable to perfect its enjoyment of this grant, and render all assistance in making application for and obtaining, maintaining, and enforcing the Letters Patent or similar legal protection on the invention in any and all countries, including without limitation providing testimony in any related interference, litigation or proceeding.

Rev: 03-07-2011

| Yunaldi Yulizar (Inventor) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 05/09/2012 |
| State of |
| County of SCATT |
| County of Scott On 5-9-3012 before me, Rhada Curl Notary (insert name and title of the officer) |
| personally appeared Yunaldi Yulizar (Inventor), who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument. |
| I certify under PENALTY OF PERJURY under the laws of the State of that the foregoing paragraph is true and correct. |
| WITNESS my hand and official seal. |
| Signature And Carl (Seal) Signature of Notary Public My Commission Expires Jan 31, 2016 |
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| |
| Akhila Tadinada (Inventor) |
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| Akhila Tadinada (Inventor) Date State of |
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- U.S. Assignment - Seagate Technology LLC

Rev: 03-07-2011

ASSIGNMENT

Seagate Docket No.: STL17069.00US Atty. Docket No.:

STX.069.A1

WHEREAS, I/we Yunaldi Yulizar of 1874 Omega Drive, Shakopee, MN 55379; and Akhila Tadinada of 13954 NE 60th Way , # 103 , Redmond , WA, are the inventor(s) of an invention entitled <u>LOGGING DISK RECOVERY</u> OPERATIONS IN A NON-VOLATILE SOLID-STATE MEMORY CACHE that is the subject matter of: (check all that

| a provisional application for Letters Patent which is identifiable in the United States Patent and Trademark Of by Application No filed on an application for Letters Patent which is identifiable in the United States Patent and Trademark Office by Application No filed on and/or executed on even date herewith: and identifiable in the United States Receiving Office by Application No filed on filed on filed on and/or executed on even date herewith: | ffice |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
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WHEREAS, Seagate Technology LLC, a limited liability company organized and existing under the laws of the State of Delaware and the United States of America, and having offices at 10200 South DeAnza Boulevard, Cupertino, California, 95014 USA, ("Assignee") is desirous of acquiring the entire right, title and interest in and to the invention, the applications, and any and all Letters Patent or similar foreign or domestic legal protection;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, I/we transfer to Assignee, its successors and assigns, my/our entire right, title and interest in and to the invention, the above-identified applications, all provisional applications from which any of the aboveidentified applications claim priority, corresponding domestic and foreign applications, any continuation, division, renewal, or substitute for the applications, all Letters Patent, any reissue, re-examination, or similar legal protection issuing related to the Letters Patent, and all rights and benefits under any applicable treaty or convention; and I/we authorize the Director of the United States Patent and Trademark Office or foreign equivalent to issue the Letters Patent or similar legal protection to the Assignee.

I/We authorize the Assignee, its successors and assigns, to insert in this instrument the filing date(s) and application numbers when ascertained. I/We further authorize the Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent or similar legal protection, in its own name if desired, in any and all foreign countries and appoint Assignee the common representative in the above identified international application and any international application for the invention.

I/We represent to the Assignee, its successors and assigns, that I/we have not and shall not execute any writing or do any act whatsoever conflicting with this Assignment. I/We, my/our executors or administrators, will at any time upon request, without additional consideration, but at the expense of the Assignee, its successors and assigns, execute and deliver to Assignee or its legal representatives such additional writings and do such additional acts as the Assignee, its successors and assigns, may deem desirable to perfect its enjoyment of this grant, and render all assistance in making application for and obtaining, maintaining, and enforcing the Letters Patent or similar legal protection on the invention in any and all countries, including without limitation providing testimony in any related interference, litigation or proceeding.

- U.S. Assignment - Seagate Technology LLC

Rev: 03-07-2011

| | Yunaldi Yulizar (Inventor) |
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| Centra as | Date |
| State of) | |
| County of | |
| Onbefore me, | |
| (| insert name and title of the officer) |
| personally appeared Yunaldi Yulizar (Inventor), who proved whose name is subscribed to the within instrument and acknowledge authorized capacity, and that by his/her signature on the instrument, | I to me on the basis of satisfactory evidence to be the person owledged to me that he/she executed the same in his/her rument the person, or the entity upon behalf of which the person |
| I certify under PENALTY OF PERJURY under the laws of the paragraph is true and correct. | s State of that the foregoing |
| WITNESS my hand and official seal. | |
| Signature (Seal) Signature of Notary Public | |
| | Allier |
| | Akhila Tadinada (Inventor) |
| State of WASHINGTON | Date 5/14/2013 |
| , | |
| OnO_J | EDONS NOTON |
| , | insert name and title of the officer) |
| whose name is subscribed to the within instrument and acknowledge. | d to me on the basis of satisfactory evidence to be the person owledged to me that he/she executed the same in his/her rument the person, or the entity upon behalf of which the person |
| I certify under PENALTY OF PERJURY under the laws of the paragraph is true and correct. | State of that the foregoing |
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PATENT REEL: 028221 FRAME: 0473

Rev: 03-07-2011

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