TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM348100

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	Security Agreement

CONVEYING PARTY DATA

Name	Formerly	Execution Date	Entity Type
ACTIFIO, INC.		07/14/2015	CORPORATION: DELAWARE

RECEIVING PARTY DATA

Name:	SILICON VALLEY BANK
Street Address:	275 Grove Street, Suite 2-200
City:	Newton
State/Country:	MASSACHUSETTS
Postal Code:	02466
Entity Type:	CORPORATION: CALIFORNIA

PROPERTY NUMBERS Total: 4

Property Type	Number	Word Mark
Registration Number:	4050274	ACTIFIO
Registration Number:	4165467	ANYIT
Registration Number:	4239395	DEDUP ASYNC
Registration Number:	4195448	VDP

CORRESPONDENCE DATA

Fax Number: 8004947512

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: 2023704750
Email: ipteam@nationalcorp.com
Correspondent Name: Darlena Bari Stark
Address Line 1:   1025 Vermont Ave NW, Suite 1130
Address Line 2:   National Corporate Research, Ltd.
Address Line 4:   Washington, D.C. 20005

ATTORNEY DOCKET NUMBER:	F157094
NAME OF SUBMITTER:	James Won
SIGNATURE:	/James Won/
DATE SIGNED:	07/15/2015

Total Attachments: 20

(vertical text, right margin) OP $115.00 4050274

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement (this "**Agreement**") is entered into as of July 14, 2015, by and between **SILICON VALLEY BANK**, a California corporation, with a loan production office located at 275 Grove Street, Suite 2-200, Newton, Massachusetts 02466 ("**Bank**") and **ACTIFIO, INC.**, a Delaware corporation with its principal place of business located at 333 Wyman Street, Suite 250, Waltham, Massachusetts 02451 ("**Grantor**").

RECITALS

A.   Bank has agreed to make certain advances of money and to extend certain financial accommodations to Grantor (the "**Loans**") in the amounts and manner set forth in that certain Amended and Restated Loan and Security Agreement by and between Bank and Grantor dated as of September 3, 2014, as amended by that certain First Amendment to Amended and Restated Loan and Security Agreement by and between Bank and Grantor dated as of the date hereof (as the same may be further amended, modified or supplemented from time to time, the "**Loan Agreement**"; capitalized terms used herein are used as defined in the Loan Agreement). Bank is willing to make the Loans to Grantor, but only upon the condition, among others, that Grantor shall grant to Bank a security interest in its Copyrights, Trademarks, Patents, and Mask Works (as each term is described below) to secure the obligations of Grantor to Bank.

B.   Pursuant to the terms of the Loan Agreement, Grantor has granted to Bank a security interest in all of Grantor's right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral.

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, as collateral security for the prompt and complete payment when due of Grantor's obligations to Bank, Grantor hereby represents, warrants, covenants and agrees as follows:

AGREEMENT

1.   <u>Grant of Security Interest</u>. To secure Grantor's obligations to Bank, Grantor grants and pledges to Bank a security interest in all of Grantor's right, title and interest in, to and under its intellectual property (all of which shall collectively be called the "**Intellectual Property Collateral**"), including, without limitation, the following:

(a)   Any and all copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held, including without limitation those set forth on <u>Exhibit A</u> attached hereto (collectively, the "**Copyrights**");

(b)   Any and all trade secrets, and any and all intellectual property rights in computer software and computer software products now or hereafter existing, created, acquired or held;

(c)   Any and all design rights that may be available to Grantor now or hereafter existing, created, acquired or held;

(d)   All patents, patent applications and like protections including, without limitation, improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same, including without limitation the patents and patent applications set forth on Exhibit B attached hereto (collectively, the "**Patents**");

(e)   Any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Grantor connected with and symbolized by such trademarks, including without limitation those set forth on Exhibit C attached hereto (collectively, the "**Trademarks**");

(f)   All mask works or similar rights available for the protection of semiconductor chips, now owned or hereafter acquired, including, without limitation those set forth on Exhibit D attached hereto (collectively, the "**Mask Works**");

(g)   Any and all claims for damages by way of past, present and future infringements of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;

(h)   All licenses or other rights to use any of the Copyrights, Patents, Trademarks, or Mask Works and all license fees and royalties arising from such use to the extent permitted by such license or rights;

(i)   All amendments, extensions, renewals and extensions of any of the Copyrights, Trademarks, Patents, or Mask Works; and

(j)   All proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

Notwithstanding the foregoing, the term "Intellectual Property Collateral" shall not include: (a) intent-to-use trademarks at all times prior to the first use thereof, whether by the actual use thereof in commerce, the recording of a statement of use with the United States Patent and Trademark Office or otherwise, or (b) rights held under a license or other agreement that are not assignable by their terms without the consent of the licensor thereof (but only to the extent such restriction on assignment is enforceable under applicable law).

2.   Recordation.   Grantor authorizes the Commissioner for Patents, the Commissioner for Trademarks and the Register of Copyrights and any other government officials to record and register this Agreement upon request by Bank.

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3. <u>Loan Documents</u>. This Agreement has been entered into pursuant to and in conjunction with the Loan Agreement, which is hereby incorporated by reference. The provisions of the Loan Agreement shall supersede and control over any conflicting or inconsistent provision herein. The rights and remedies of Bank with respect to the Intellectual Property Collateral are as provided by the Loan Agreement and related documents, and nothing in this Agreement shall be deemed to limit such rights and remedies.

4. <u>Execution in Counterparts</u>. This Agreement may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page to this Agreement by facsimile or in electronic (i.e., "pdf" or "tif" format) shall be effective as delivery of a manually executed counterpart of this Agreement.

5. <u>Successors and Assigns</u>. This Agreement will be binding on and shall inure to the benefit of the parties hereto and their respective successors and assigns.

6. <u>Governing Law</u>. This Agreement and any claim, controversy, dispute or cause of action (whether in contract or tort or otherwise) based upon, arising out of or relating to this Agreement and the transactions contemplated hereby and thereby shall be governed by, and construed in accordance with, the laws of the United States and the State of New York, without giving effect to any choice or conflict of law provision or rule (whether of the State of New York or any other jurisdiction).

[Signature page follows.]

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IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:

ACTIFIO, INC.

By:

Name: Jim Kelliher

Title: Chief Financial Officer

BANK:

SILICON VALLEY BANK

By:

Name:

Title:

IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:

ACTIFIO, INC.

By:_____

Name:_____

Title:_____

BANK:

SILICON VALLEY BANK

By:_____

Name: DAN ALLRED

Title: MARKET MGR

<u>EXHIBIT A</u>

Copyrights

<u>Description</u>	<u>Registration/</u> <u>Application</u> <u>Number</u>	<u>Registration/</u> <u>Application</u> <u>Date</u>

Patents

Description	Registration/ Application Number	Registration/ Application Date

Patent Status

	Application No.	Title	Filing Date	Issued Date	US/Foreign
1	(Utility) 12/947513	System and Method For Creating Deduplicated Copies Of Data By Sending Differrence Data Between Near-Neighbor Temporal States	11/16/2010	4/9/2013	US
2	(Utility) 13/859290	System and Method For Creating Deduplicated Copies Of Data By Sending Differrence Data Between Near-Neighbor Temporal States	9/4/2013	N/A	US
3	(Utility) 12/947438	System and Method For Creating Deduplicated Copies Of Data Storing Non-Lossy Encodings Of Data Directly In A Content Addressable Store	11/16/2010	11/16/2010	US
4	(Utility) 12/947375	System and Method For Creating Deduplicated Copies Of Data Using Temporal Relationships Among Copies	11/16/2010	9/23/2014	US
5	(Utility) 14/339039	System and Method For Creating Deduplicated Copies Of Data Using Temporal Relationships Among Copies	7/23/2014		US
6	(Utility) 12/947383	System And Method For Improved Garbage Collection Operations In A Deduplicated Store By Tracking Temporal Relationships Among Copies	11/16/2010	3/12/2013	US
7	(Utility) 12/947418	System And Method For Creating Deduplicated Copies of Data By Tracking Temporal Relationships Among Copies and By Ingesting Difference Data	11/16/2010	3/19/2013	US
8	(Utility) 13/847256	System And Method For Creating Deduplicated Copies of Data By Tracking Temporal Relationships Among Copies Using Higher Level Hash Structures	3/19/2013	N/A	US
9	(Utility) 14/627880	System And Method For Creating Deduplicated Copies of Data By Tracking Temporal Relationships Among Copies Using Higher Level Hash Structures	2/20/2015		US

10	(Utility) 12/947393	System and Method For Performing Backup Or Restore Operations Utilizing Difference Information And Timeline State Information	11/16/2010	7/22/2014	US
11	(Utility) 14/309033	System and Method For Performing Backup Or Restore Operations Utilizing Difference Information And Timeline State Information	6/19/2014		US
12	(Australian Patent Application) 2011329232	Systems and Methods for Data Management Virtualization	5/13/2013	N/A	Foreign
13	(Brazilian Patent Application) 1120130121134-3	Systems and Methods for Data Management Virtualization	5/15/2013	N/A	Foreign
14	(Canadian Patent Application)2817 592	Systems and Methods for Data Management Virtualization	5/9/2013	N/A	Foreign
15	(Chinese Patent Application)2011 80061716.7	Systems and Methods for Data Management Virtualization	6/21/2013	N/A	Foreign
16	(European Patent Application) 11841345.9	Systems and Methods for Data Management Virtualization	5/28/2013	N/A	Foreign
17	(Japanese Patent Application)TBD	Systems and Methods for Data Management Virtualization	5/16/2013	N/A	Foreign
18	(Korean Patent Application) 10-2013-7015597	Systems and Methods for Data Management Virtualization	6/17/2013	N/A	Foreign

19	(Utility) 12/947385	System and Method for Managing Data With Service Level Agreements That May Specify Non-Uniform Copying Of Data	11/16/2010	N/A	US
20	(Utility) 12/947436	System and Method For Performing A Plurality Of Prescribed Data Management Functions In a Manner That Reduces Redundant Access Operations To Primary Storage	11/16/2010	12/2/2014	US
21	(Utility) 14/557749	System and Method For Performing A Plurality Of Prescribed Data Management Functions In a Manner That Reduces Redundant Access Operations To Primary Storage	12/2/2014		US
22	(Utility) 13/564513	Data Fingerprit For Copy Accuracy Assurance	8/1/2012	4/1/2014	US
23	(Utility) 13/564506	Hybrid Seeding For Improved Incremental Copy Performance	8/1/2012		US
24	(Utility) 13/920932	Efficient Database Record Replication	6/18/2013		US
25	(Utility) 13/564502	Replication For Business Continuity	8/1/2012	10/28/2014	US
26	(Utility) 14/491,240	Improved Data Replication System	9/19/2014	9/17/2015	US
27	(Utility) 13/920932	Enhanced Data Management Virtualization System	6/18/2013	N/A	US
28	(Austrailia Patent 2013277351)	Enhanced Data Management Virtualization System	6/18/2013		Foreign

29	(Canada patent 2877284)	Enhanced Data Management Virtualization System	6/18/2013	Foreign
30	(China Patent 2013800439154)	Enhanced Data Management Virtualization System	6/18/2013	Foreign
31	(EUROPEAN Patent Application) 13807418.2	Enhanced Data Management Virtualization System	6/18/2013	Foreign
32	(JAPAN PATENT Application) 0000	Enhanced Data Management Virtualization System	6/18/2013	Foreign

33	(Korea Patent Application) 10-2015-7001231	Enhanced Data Management Virtualization System	6/18/2013		Foreign
34	(Utility) 13/920923	System and Method for Caching Hashes For Co-Located Data in a Deduplication Data Store	6/18/2013		US
35	(Utility) 13/920981	System and Method for Incrementally Backing Up Out-Of-Band Data	6/18/2013		US
36	(Utility) 13/920976	System and Method For Providing Intra-Process Communication For an Application Programming Interface	6/18/2013		US
37	(Utility) 13/921008	System and Method For Quick-Linking User Interface Jobs Across Services Based On System Implementation Information	6/18/2013		US
38	(Utility) 13/920950	System and Method for Intellegent Database Backup	6/18/2013		US
39	(Utility) 13/564517	Successive Data Fingerprinting For Copy Accuracy Assurance	8/1/2012	3/17/2015	US
40	(Provisional) 62/063162	Copy Data Techniques	10/13/2014		US
41	(Utility) 14/546718	Successive Data Fingerprinting For Copy Accuracy Assurance	11/18/2014		US
42	(Utility) 14/643193	Successive Data Fingerprinting For Copy Accuracy Assurance	3/10/2015		US
43	(PCT) US14/66104	Copy Data Techniques	11/18/2014		Foreign
44	(Utility) 14/120340	Synthetic Near Neighbors For Replication	5/14/2014		US
45	(PCT) US14/00111	Efficient Data Replication and Garbage Collection Predictions	5/14/2014		Foreign
46	(Utility) 14/120368	History Tree-Based Statistics for Predicting Garbage Cllection Effectiveness	5/14/2014		US
47	(Utility) 14/287607	System and Method for Rapid Estimation of Data Similarity	5/27/2014		US

48	(Utility) 14/546727	Computerized Methods and Apparatus for Incremental Database Backup using Change Tracking	11/18/2014	US
49	(Utility) 14/546,738	Data Management Virtualization	11/18/2014	US
50	(Utility) 14/546,747	Computerized Methods and Apparatus for Data Cloning	11/18/2014	US
51	(Utility) 14/546,757	Test-and-Development Workflow Automation	11/18/2014	US
52	(Utility) 14/622479	Virtual Data Backup (Cascading Dedup, Dedup and Backup for Remote Office Environments, Archival or Business Continuance in the CLoud, Direct Dedup)	2/13/2015	US
53	(PCT) US15/15845	Virtual Data Backup (Cascading Dedup, Dedup and Backup for Remote Office Environments, Archival or Business Continuance in the CLoud, Direct Dedup)	2/13/2015	Foreign
54	(Utility) 14/622487	Virtual Deduplicating and Backup Appliance For Remote Office Environment	2/13/2015	US
55	(Utility) 14/622492	Archival of Business Continuance in the Cloud	2/13/2015	US
56	(Utility) 14/624231	Local Area Network Free Data Movement	2/17/2015	US
57	(Utility) 14/705740	Methods and Apparatus for Replicated Data Test Failover	6/5/2015	US
58	(Provisional) 62/051,138	Apparaus and Computerized Methods For Copy Data Management	9/16/2014	US

59	(Provisional) 62/106306	Apparaus and Computerized Methods For Copy Data Management	1/22/2015		US
60	(Provisional) 62/160153	Apparaus and Computerized Methods For Copy Data Management	5/12/2015		
61	(Provisional) 62/013,334	Resiliency Director	6/17/2014		US
62	(Provisional) 62/063,180	Copy Data Techniques	10/13/2014		US
63	(Provisional) 62/091220	Incremental Indexing Strategy for Content Search of Backup Data	12/12/2014		US
64	(Provisional) 62/102393	Actifio Global Manager (CLI)	1/12/2015		US
65	(Provisional) 62/155198	Data Provisioning Techniques	4/30/2015		US
66	(Utility) 14/789345	Data Virtualization Using Copy Dat	7/1/2015		US
67	(Utility) 14/789360	Integrating Copy Data Tokens With Source Code Repositories	7/1/2015		US
68	10055297	Instant Virtual Copy Technique with Expedited Creation of Backup Dataset Inventory from Source Dataset Inventory	1/22/2002	5/4/2004	US
69	10383451	Method, System and Program for Data Backup	3/6/2003	10/25/2005	US

<u>EXHIBIT C</u>

Trademarks

<u>Description</u>	<u>Registration/</u> <u>Application</u> <u>Number</u>	<u>Registration/</u> <u>Application</u> <u>Date</u>

Trademarks in the Name of Actifio, Inc.
as of July 2015

Pending Applications

Mark	Country	Serial No.	Filing Date	Goods	Status
ACTIFIO	Argentina	3291687	11/15/13	Computer software and hardware for managing computer network storage in Class 9	Published
ACTIFIO	Brazil	840717954	11/26/13	Computer software and hardware for managing computer network storage] in Class 9	Published
ACTIFIO	Canada	1652023	11/14/13	Computer software and hardware for managing computer network storage	Published

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Trademarks in the Name of Actifio, Inc.
as of July 2015

Issued Registrations

Mark	Country	Regis. No.	Regis. Date	Goods	Status
ACTIFIO	European Community Madrid Protocol	1184800	11/13/13	Computer software and hardware for managing computer network storage in Class 9	Renewal under Madrid Protocol due 11/13/23
ACTIFIO	Madrid Protocol European Community	1184800	11/13/13	Computer software and hardware for managing computer network storage in Class 9	Renewal due 11/13/23
ACTIFIO	United States	4050274	11/01/11	Computer software and hardware for managing computer network storage [07/00/10] in Class 9	Section 8 Affidavit due 11/01/17
ANYIT	United States	4165467	06/26/12	Computer software for managing network storage and non-network storage [03/12/12] in Class 9	Section 8 Affidavit due 06/26/18
DEDUP ASYNC	United States	4239395	11/06/12	Computer software for managing network storage and non-network storage [07/00/10] in Class 9	Section 8 Affidavit due 11/06/18
VDP	United States	4195448	08/21/12	Computer software for managing network storage and non-network storage [03/12/12] in Class 9	Section 8 Affidavit due 08/21/18

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Abandoned Marks of Actifio, Inc.
as of July 2015

Mark	Country	No.	Date	Goods	Status
COPY DATA STORAGE	United States	85/946241	05/30/13	Computer programs for use in backing-up and replicating computer applications, databases, hard drives and operating systems, replacing content and restoring operations [ITU] in Class 9	Abandoned per M. Troiano 03/06/14
LIVECLONE	United States	85/887029	03/27/13	Computer programs for use in backing-up and replicating computer applications, databases, hard drives and operating systems, replacing content and restoring operations [ITU] in Class 9	Abandoned per M. Troiano 03/06/14
MANAGE DATA SIMPLY	United States	85/257438	03/03/11	Computer hardware and software for managing network storage and non-network storage [ITU] in Class 9	Abandoned per J. Pearce 10/17/12
SIMPLI	United States	85/074271	06/29/10	Computer software and hardware for managing computer network storage [ITU] in Class 9	Expressly Abandoned per J. Pearce 06/16/11

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TRADEMARK
REEL: 005577 FRAME: 0159

<u>EXHIBIT D</u>

Mask Works

<u>Description</u>	<u>Registration/</u> <u>Application</u> <u>Number</u>	<u>Registration/</u> <u>Application</u> <u>Date</u>

1146281.3
1859797.1
1859946.3