

## TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

ETAS ID: TM348023

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT		
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST		
<b>CONVEYING PARTY DATA</b>			
<b>Name</b>	<b>Formerly</b>	<b>Execution Date</b>	<b>Entity Type</b>
Actifio, Inc.		07/14/2015	CORPORATION: DELAWARE
<b>RECEIVING PARTY DATA</b>			
<b>Name:</b>	Hercules Technology Growth Capital, Inc., as Agent		
<b>Street Address:</b>	400 Hamilton Avenue, Suite 310		
<b>City:</b>	Palo Alto		
<b>State/Country:</b>	CALIFORNIA		
<b>Postal Code:</b>	94301		
<b>Entity Type:</b>	CORPORATION: MARYLAND		
<b>PROPERTY NUMBERS Total: 4</b>			
<b>Property Type</b>	<b>Number</b>	<b>Word Mark</b>	
<b>Registration Number:</b>	4050274	ACTIFIO	
<b>Registration Number:</b>	4165467	ANYIT	
<b>Registration Number:</b>	4239395	DEDUP ASYNC	
<b>Registration Number:</b>	4195448	VDP	
<b>CORRESPONDENCE DATA</b>			
<b>Fax Number:</b>	4156932222		
<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>	4156932000		
<b>Email:</b>	crhem@cooley.com		
<b>Correspondent Name:</b>	Cooley LLP		
<b>Address Line 1:</b>	101 California Street, 5th Floor		
<b>Address Line 4:</b>	San Francisco, CALIFORNIA 94111		
<b>ATTORNEY DOCKET NUMBER:</b>	305866-1021 ACTIFIO		
<b>NAME OF SUBMITTER:</b>	C. Rhem		
<b>SIGNATURE:</b>	/CR/		
<b>DATE SIGNED:</b>	07/14/2015		
<b>Total Attachments: 10</b>			
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## INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement is entered into as of July 14, 2015 by and between HERCULES TECHNOLOGY GROWTH CAPITAL, INC., a Maryland corporation ("Agent"), and ACTIFIO, INC., a Delaware corporation ("Grantor").

### RECITALS

A. Lender has agreed to make certain advances of money and to extend certain financial accommodation (the "Loans") to Grantor in the amounts and manner set forth in that certain Loan and Security Agreement by and among the several banks and other financial institutions or entities from time to time parties thereto (collectively, referred to as "Lender"), Agent and Grantor, dated as of July 14, 2015 (as the same may be amended, modified or supplemented from time to time, the "Loan Agreement"; capitalized terms used herein are used as defined in the Loan Agreement).

B. Lender is willing to make the Loans to Grantor, but only upon the condition, among others, that Grantor shall grant to Agent a security interest in certain Copyrights, Trademarks and Patents to secure the obligations of Grantor under the Loan Agreement.

C. Pursuant to the terms of the Loan Agreement, Grantor has granted to Agent 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 its obligations under the Loan Agreement and all other agreements now existing or hereafter arising among Lender, Grantor and Agent, Grantor hereby represents, warrants, covenants and agrees as follows:

### AGREEMENT

To secure its obligations under the Loan Agreement and under any other agreement now existing or hereafter arising among Lender, Agent and Grantor, Grantor grants and pledges to Agent a security interest in all of Grantor's right, title and interest in, to and under its Intellectual Property (including without limitation those Copyrights, Patents and Trademarks listed on Exhibits A, B and C hereto), and including without limitation all proceeds thereof (such as, by way of example but not by way of limitation, license royalties and proceeds of infringement suits), the right to sue for past, present and future infringements, all rights corresponding thereto throughout the world and all re-issues, divisions continuations, renewals, extensions and continuations-in-part thereof (collectively, the "Intellectual Property Collateral"). Notwithstanding the foregoing, the "Intellectual Property Collateral" shall not include (a) any "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, and (b) nonassignable licenses or contracts, which by their terms require the consent of the licensor thereof or another party (but only to the extent such prohibition on transfer is enforceable under applicable law, including, without limitation, Sections 9406, 9407 and 9408 of the UCC).

This security interest is granted in conjunction with the security interest granted to Agent under the Loan Agreement. The rights and remedies of Agent with respect to the security interest granted hereby are in addition to those set forth in the Loan Agreement and the other Loan Documents, and those which are now or hereafter available to Agent as a matter of law or equity. Each right, power and remedy of Agent provided for herein or in the Loan Agreement or any of the Loan Documents, or now or hereafter existing at law or in equity shall be cumulative and concurrent and shall be in addition to every right, power or remedy provided for herein and the exercise by Agent of any one or more of the rights, powers or remedies provided for in this Intellectual Property Security Agreement, the Loan Agreement or any of the other Loan Documents, or now or hereafter existing at law or in equity, shall not preclude the simultaneous or later exercise by any person, including Agent, of any or all other rights, powers or remedies.

Grantor represents and warrants that Exhibits A, B, and C attached hereto set forth any and all intellectual property rights in connection to which Grantor has registered or filed an application with either the United States Patent and Trademark Office or the United States Copyright Office, as applicable.

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.

Address of Grantor:

333 Wyman Street, Suite 250  
Waltham, MA 02451  
Attention: Jim Kelliher

GRANTOR:

ACTIFIO, INC.

By: 

Title: Chief Financial Officer

Address of Agent:

400 Hamilton Avenue, Suite 310  
Palo Alto, CA 94301  
Attn: Loan Documentation

AGENT:

HERCULES TECHNOLOGY GROWTH CAPITAL, INC.

By: \_\_\_\_\_

Ben Bang, Assistant General Counsel

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.

Address of Grantor:

333 Wyman Street, Suite 250  
Waltham, MA 02451  
Attention: Jim Kelliher

GRANTOR:

ACTIFIO, INC.

By: \_\_\_\_\_

Title: \_\_\_\_\_

Address of Agent:

400 Hamilton Avenue, Suite 310  
Palo Alto, CA 94301  
Attn: Loan Documentation

AGENT:

HERCULES TECHNOLOGY GROWTH CAPITAL, INC.

By: Christine Fera

Title: Christine Fera  
Director of Contract

Originations

EXHIBIT A

Copyrights

NONE

EXHIBIT B

Patents

Application No./ Patent No.	Title	Filing Date	Issued Date	Country
(Utility) 12/947513	System and Method For Creating Deduplicated Copies Of Data By Sending Difference Data Between Near-Neighbor Temporal States	11/16/2010	4/9/2013	US
(Utility) 13/859290	System and Method For Creating Deduplicated Copies Of Data By Sending Difference Data Between Near-Neighbor Temporal States	9/4/2013	N/A	US
(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
(Utility) 12/947375	System and Method For Creating Deduplicated Copies Of Data Using Temporal Relationships Among Copies	11/16/2010	9/23/2014	US
(Utility) 14/339039	System and Method For Creating Deduplicated Copies Of Data Using Temporal Relationships Among Copies	7/23/2014		US
(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
(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
(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
(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
(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



(Utility) 14/309033	System and Method For Performing Backup Or Restore Operations Utilizing Difference Information And Timeline State Information	6/19/2014		US
(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
(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
(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
(Utility) 13/564513	Data Fingerprit For Copy Accuracy Assurance	8/1/2012	4/1/2014	US
(Utility) 13/564506	Hybrid Seeding For Improved Incremental Copy Performance	8/1/2012		US
(Utility) 13/920932	Efficient Database Record Replication	6/18/2013		US
(Utility) 13/564502	Replication For Business Continuity	8/1/2012	10/28/2014	US
(Utility) 14/491,240	Improved Data Replication System	9/19/2014	9/17/2015	US
(Utility) 13/920932	Enhanced Data Management Virtualization System	6/18/2013	N/A	US
(Utility) 13/920923	System and Method for Caching Hashes For Co-Located Data in a Deduplication Data Store	6/18/2013		US
(Utility) 13/920981	System and Method for Incrementally Backing Up Out-Of-Band Data	6/18/2013		US
(Utility) 13/920976	System and Method For Providing Intra-Process Communication For an Application Programming Interface	6/18/2013		US
(Utility) 13/921008	System and Method For Quick-Linking User Interface Jobs Across Services Based On System Implementation Information	6/18/2013		US
(Utility) 13/920950	System and Method for Intellegent Database Backup	6/18/2013		US
(Utility) 13/564517	Successive Data Fingerprinting For Copy Accuracy Assurance	8/1/2012	3/17/2015	US
(Provisional) 62/063162	Copy Data Techniques	10/13/2014		US

(Utility) 14/546718	Successive Data Fingerprinting For Copy Accuracy Assurance	11/18/2014		US
(Utility) 14/643193	Successive Data Fingerprinting For Copy Accuracy Assurance	3/10/2015		US
(Utility) 14/120340	Synthetic Near Neighbors For Replication	5/14/2014		US
(Utility) 14/120368	History Tree-Based Statistics for Predicting Garbage Collection Effectiveness	5/14/2014		US
(Utility) 14/287607	System and Method for Rapid Estimation of Data Similarity	5/27/2014		US
(Utility) 14/546727	Computerized Methods and Apparatus for Incremental Database Backup using Change Tracking	11/18/2014		US
(Utility) 14/546,738	Data Management Virtualization	11/18/2014		US
(Utility) 14/546,747	Computerized Methods and Apparatus for Data Cloning	11/18/2014		US
(Utility) 14/546,757	Test-and-Development Workflow Automation	11/18/2014		US
(Utility) 14/622479	Virtual Data Backup (Cascading Dedup, Dedup and Backup for Remote Office Environments, Archival or Business Continuance in the CCloud, Direct Dedup)	2/13/2015		US
(Utility) 14/622487	Virtual Deduplicating and Backup Appliance For Remote Office Environment	2/13/2015		US
(Utility) 14/622492	Archival of Business Continuance in the Cloud	2/13/2015		US
(Utility) 14/624231	Local Area Network Free Data Movement	2/17/2015		US
(Utility) 14/705740	Methods and Apparatus for Replicated Data Test Failover	6/5//2015		US
(Provisional) 62/051,138	Apparatus and Computerized Methods For Copy Data Management	9/16/2014		US
(Provisional) 62/106306	Apparatus and Computerized Methods For Copy Data Management	1/22/2015		US
(Provisional) 62/160153	Apparatus and Computerized Methods For Copy Data Management	5/12/2015		US
(Provisional) 62/013,334	Resiliency Director	6/17/2014		US
(Provisional) 62/063,180	Copy Data Techniques	10/13/2014		US

(Provisional) 62/091220	Incremental Indexing Strategy for Content Search of Backup Data	12/12/2014		US
(Provisional) 62/102393	Actifio Global Manager (CLI)	1/12/2015		US
(Provisional) 62/155198	Data Provisioning Techniques	4/30/2015		US
(Utility) 14/789345	Data Virtualization Using Copy Dat	7/1/2015		US
(Utility) 14/789360	Integrating Copy Data Tokens With Source Code Repositories	7/1/2015		US
10055297	Instant Virtual Copy Technique with Expedited Creation of Backup Dataset Inventory from Source Dataset Inventory	1/22/2002	5/4/2004	US
10383451	Method, System and Program for Data Backup	3/6/2003	10/25/2005	US

EXHIBIT C

Trademarks

<b>Name</b>	<b>Date Filed</b>	<b>Status</b>	<b>Country</b>	<b>Registration Number</b>
ACTIFIO	11/01/11	Registered	United States	4050274
ANYIT	06/26/12	Registered	United States	4165467
DEDUP ASYNC	11/06/12	Registered	United States	4239395
VDP	08/21/12	Registered	United States	4195448