PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT6389651

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	NUNC PRO TUNC ASSIGNMENT
EFFECTIVE DATE:	07/15/2020

CONVEYING PARTY DATA

Name	Execution Date
DATRIUM, INC.	10/22/2020

RECEIVING PARTY DATA

Name:	VMWARE, INC.
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PROPERTY NUMBERS Total: 28

Property Type	Number
Patent Number:	10146684
Patent Number:	10540504
Patent Number:	10554520
Application Number:	62481098
Application Number:	15960841
Application Number:	15956283
Application Number:	14710541
Application Number:	14464733
Application Number:	14520610
Application Number:	14568700
Application Number:	62197540
Application Number:	14983562
Application Number:	62197537
Application Number:	15177342
Application Number:	62197546
Application Number:	15220407
Application Number:	62197528
Application Number:	15220409

Property Type	Number
Application Number:	62211693
Application Number:	15249414
Application Number:	13998531
Application Number:	16130834
Application Number:	16245203
Application Number:	16295290
Application Number:	16241635
Application Number:	16356818
Application Number:	16601014
Application Number:	16747495

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ATTORNEY DOCKET NUMBER:	38172-0001001
NAME OF SUBMITTER:	MARI BOHNHOFF
SIGNATURE:	/Mari Bohnhoff/
DATE SIGNED:	11/06/2020

Total Attachments: 7

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PATENT ASSIGNMENT AGREEMENT
(NUNC PRO TUNC)

This Patent Assignment Agreement is effective as of July 15, 2020 (the "**Effective Date**") and is between Datrium, Inc., a Delaware corporation, ("**Assignor**") and VMware, Inc., a Delaware corporation ("**Assignee**"). Each of Assignor and Assignee are referred to herein as a "**Party**" or, collectively, as the "**Parties**."

Under the Intellectual Property Distribution Agreement, effective as of July 15, 2020 (the "**IP Distribution Agreement**"), Assignor assigned to Assignee all of Assignor's right, title and interest in the Patents (as defined in the IP Distribution Agreement) owned by Assignor, including, without limitation, the patents and patent applications set forth below in **Schedule A**; any and all issued patents, continuations, divisional, renewals, extensions, continuations-in-part, reexaminations, reissue applications, foreign counterparts or any other patent or application that claims priority to any of the foregoing or to the patent applications listed in **Schedule A**; and any invention disclosed or claimed in any of the foregoing (the "**Assignor Patents**").

In exchange for good and valuable consideration, the receipt of which is hereby acknowledged, as of the Effective Date, Assignor did and does hereby sell and assign unto Assignee all of Assignor's right, title and interest in the Assignor Patents, including all rights to recover damages for any and all past, current or future infringement, and the right to file applications and make claims of priority to the Assignor Patents under the patent laws of the United States, the International Convention for the Protection of Industrial Property, and any other international agreement or convention or the domestic laws of any country in which such application is filed. Assignor hereby authorizes and requests the Commissioner of the United States Patent and Trademark Office, and the corresponding entity or agency in any applicable foreign country, to record Assignee as assignee and owner of the Assignor Patents.

In case of any conflict between the terms and conditions of this agreement and the terms and conditions of the IP Distribution Agreement, the terms and conditions of the IP Distribution Agreement shall govern. This agreement may be executed in two or more counterparts and by the different parties hereto on separate counterparts, each of which when so executed and delivered will be an original, but all of which together will constitute one and the same instrument. Any such counterpart, to the extent delivered by means of electronic or digital delivery such as in Adobe Portable Document Format or using generally recognized e-signature technology (e.g., DocuSign or Adobe Sign) will be treated in all manner and respects as an original executed counterpart and will be considered to have the same binding legal effect as if it were the original signed version thereof delivered in person. This agreement will be governed by and construed in accordance with the laws of the State of Delaware, regardless of the laws that might otherwise govern under applicable principles of conflicts of law.

[*Signature page follows*]

The Parties have caused this Patent Assignment Agreement to be effective as of the Effective Date and executed by duly authorized persons as of the last date below.

DATRIUM, INC.

By: _[signature]_

Name: Andrew Munk
Title: Vice President, Finance
Date: Oct 22, 2020

VMWARE, INC.

By: _[signature]_

Name: Craig Norris
Title: Vice President, Deputy General Counsel, and Assistant Secretary
Date: Oct 21, 2020

Schedule A
(Patents)

Record Owner	Status	Country / Region	Application No.	Filing Date	Patent No.	Title
Datrium, Inc.	Issued	US - (United States)	15/332,790	10/24/2016	10,146,684	DISTRIBUTED DATA PARALLEL METHOD FOR RECLAIMING SPACE
Datrium, Inc.	Issued	US - (United States)	15/444,090	2/27/2017	10,540,504	DISTRIBUTED DATA METHOD FOR ENCRYPTING DATA
Datrium, Inc.	Issued	US - (United States)	15/616,791	6/7/2017	10,554,520	DATA PATH MONITORING IN A DISTRIBUTED STORAGE NETWORK
Datrium, Inc.	Expired	US - (United States)	62/481,098	4/3/2017		DATA PATH MONITORING IN A DISTRIBUTED STORAGE NETWORK
Datrium, Inc.	Pending	US - (United States)	15/960,841	4/24/2018		SNAPSHOT FOR GROUPING AND ELASTIC REPLICATION OF VIRTUAL MACHINES
Datrium, Inc.	Pending	US - (United States)	15/956,283	4/18/2018		ELASTIC REPLICATION OF VIRTUAL MACHINES
Datrium, Inc.	Pending	EP - (European Patent Convention)	17197879.4	10/23/2017		DISTRIBUTED DATA PARALLEL METHOD FOR RECLAIMING SPACE
Datrium, Inc.	Pending	JP - (Japan)	2017-202479	10/19/2017		DISTRIBUTED DATA PARALLEL METHOD FOR RECLAIMING SPACE
Datrium, Inc.	Pending	EP - (European Patent Convention)	18158639.7	2/26/2018		DISTRIBUTED DATA METHOD FOR ENCRYPTING DATA

Datrium, Inc.	Pending	JP - (Japan)	2018-031741	2/26/2018		DISTRIBUTED DATA METHOD FOR ENCRYPTING DATA
Datrium, Inc.	Pending	EP - (European Patent Convention)	18165363.5	4/2/2018		DATA PATH MONITORING WITHIN A DISTRIBUTED STORAGE NETWORK
Datrium, Inc.	Pending	JP - (Japan)	2018-070718	4/2/2018		DATA PATH MONITORING WITHIN A DISTRIBUTED STORAGE NETWORK
Datrium, Inc.	Issued	US - (United States)	14/710,541	5/12/2015	10,180,948	DATA STORAGE WITH A DISTRIBUTED
Datrium, Inc.	Issued	EP - (European Patent Convention)	602015019726.7	6/25/2015	3094055	DATA STORAGE WITH A DISTRIBUTED VIRTUAL ARRAY
Datrium, Inc.	Pending	JP - (Japan)	2015-130381	6/29/2015		DATA STORAGE WITH A DISTRIBUTED VIRTUAL ARRAY
Datrium, Inc.	Issued	US - (United States)	14/464,733	8/21/2014	9,639,268	DISTRIBUTED DATA STORAGE SYSTEM WITH KEY-BASED ADDRESSING
Datrium, Inc.	Issued	US - (United States)	14/520,610	10/22/2014	9,417,955	DATA RECONSTRUCTION IN DISTRIBUTED DATA STORAGE SYSTEM WITH KEY-BASED ADDRESSING
Datrium, Inc.	Issued	US - (United States)	14/568,700	12/12/2014	10,514,982	ALTERNATE STORAGE ARRANGEMENT IN A DISTRIBUTED DATA STORAGE SYSTEM WITH KEY-BASED ADDRESSING

Datrium, Inc.	Expired	US - (United States)	62/197,540	7/27/2015		COORDINATED UPGRADE OF A CLUSTER STORAGE SYSTEM
Datrium, Inc.	Issued	US - (United States)	14/983,562	12/30/2015	9,703,490	COORDINATED UPGRADE OF A CLUSTER STORAGE SYSTEM
Datrium, Inc.	Expired	US - (United States)	62/197,537	7/27/2015		SYSTEM AND METHODS FOR DEDUPING DATA CLUMPS
Datrium, Inc.	Issued	US - (United States)	15/177,342	6/9/2016	10,235,044	SYSTEM AND METHODS FOR STORAGE DATA DEDUPLICATION
Datrium, Inc.	Expired	US - (United States)	62/197,546	7/27/2015		DIRECT HOST-TO-HOST TRANSFER FOR LOCAL CONTENT ADDRESSABLE CACHES IN VIRTUALIZED SYSTEMS
Datrium, Inc.	Allowed	US - (United States)	15/220,407	7/27/2016		DIRECT HOST-TO-HOST TRANSFER FOR LOCAL CACHE IN VIRTUALIZED SYSTEMS WHEREIN HOSTING HISTORY STORES PREVIOUS HOSTS THAT SERVE AS CURRENTLY-DESIGNATED HOST FOR SAID DATA OBJECT PRIOR TO MIGRATION OF SAID DATA OBJECT, AND SAID HOSTING HISTORY IS CHECKED DURING SAID MIGRATION

Datrium, Inc.	Expired	US - (United States)	62/197,528	7/27/2015		SYSTEM AND METHOD FOR EVICTION AND REPLACEMENT IN LARGE CONTENT-ADDRESSABLE FLASH CACHES
Datrium, Inc.	Issued	US - (United States)	15/220,409	7/27/2016	10,061,706	SYSTEM AND METHOD FOR EVICTION AND REPLACEMENT IN LARGE CONTENT-ADDRESSABLE FLASH CACHES
Datrium, Inc.	Expired	US - (United States)	62/211,693	8/28/2015		SYSTEM AND METHOD FOR MANAGING A NON-VOLATILE STORAGE RESOURCE AS A SHARED RESOURCE IN A DISTRIBUTED SYSTEM
Datrium, Inc.	Issued	US - (United States)	15/249,414	8/28/2016	10,089,013	SYSTEM AND METHOD FOR MANAGING A NON-VOLATILE STORAGE RESOURCE AS A SHARED RESOURCE IN A DISTRIBUTED SYSTEM
Datrium, Inc.	Issued	US - (United States)	13/998,531	11/7/2013	10,140,136	DISTRIBUTED VIRTUAL ARRAY DATA STORAGE SYSTEM AND METHOD
Datrium, Inc.	Issued	US - (United States)	16/130,834	9/13/2018	10,359,945	SYSTEM AND METHOD FOR MANAGING A NON- VOLATILE STORAGE RESOURCE AS A SHARED RESOURCE IN A DISTRIBUTED SYSTEM

Datrium, Inc.	Pending	US - (United States)	16/245,203	1/10/2019		MULTI-PIPE BANDWIDTH CONTROL IN HOSTED SYSTEMS
Datrium, Inc.	Pending	US - (United States)	16/295,290	3/7/2019		CONTENT-BASED DATA MIGRATION
Datrium, Inc.	Pending	US - (United States)	16/241,635	1/7/2019		DATA STORAGE WITH A DISTRIBUTED VIRTUAL ARRAY
Datrium, Inc.	Issued	DE - (Germany)	602015019726.7	6/25/2015	3094055	DATA STORAGE WITH A DISTRIBUTED VIRTUAL ARRAY
Datrium, Inc.	Issued	GB - (Great Britain)	15173812.7	6/25/2015	3094055	DATA STORAGE WITH A DISTRIBUTED VIRTUAL ARRAY
Datrium, Inc.	Pending	US - (United States)	16/356,818	3/18/2019		SYSTEM AND METHODS FOR STORAGE DATA DEDUPLICATION
Datrium, Inc.	Pending	US - (United States)	16/601,014	10/14/2019		TOPOGRAPHICAL SEARCH
Datrium, Inc.	Pending	US - (United States)	16/747,495	1/20/2020		DISTRIBUTED DATA METHOD FOR ENCRYPTING DATA