

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
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EPAS ID: PAT5094527

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
CONVEYING PARTY DATA	
Name	Execution Date
QUANTUM CORPORATION	08/07/2018
RECEIVING PARTY DATA	
Name:	TCW ASSET MANAGEMENT COMPANY LLC, AS AGENT
Street Address:	200 CLARENDON STREET, 51ST FLOOR
City:	BOSTON
State/Country:	MASSACHUSETTS
Postal Code:	02116
PROPERTY NUMBERS Total: 18	
Property Type	Number
Application Number:	15592179
Application Number:	15804238
Application Number:	15631486
Application Number:	15618723
Application Number:	15602726
Application Number:	15468405
Application Number:	15421583
Application Number:	15400265
Application Number:	15386484
Application Number:	15385023
Application Number:	15383532
Application Number:	15372169
Application Number:	15370155
Application Number:	15365287
Application Number:	15360774
Application Number:	15352475
Application Number:	15340691
Application Number:	15339024
CORRESPONDENCE DATA	

Fax Number: (312)863-7806

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: 3128637198

Email: nancy.brougher@goldbergkohn.com

Correspondent Name: NANCY BROUGHER, PARALEGAL

Address Line 1: GOLDBERG KOHN LTD.

Address Line 2: 55 EAST MONROE, SUITE 3300

Address Line 4: CHICAGO, ILLINOIS 60603

ATTORNEY DOCKET NUMBER:	7129.021
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NAME OF SUBMITTER:	NANCY BROUGHER
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SIGNATURE:	/njb/
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DATE SIGNED:	08/13/2018
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Total Attachments: 5

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SUPPLEMENT TO INTELLECTUAL PROPERTY SECURITY AGREEMENT

THIS SUPPLEMENT TO INTELLECTUAL PROPERTY SECURITY AGREEMENT (the "Supplement") made as of this 7th day of August, 2018, QUANTUM CORPORATION, a Delaware corporation ("Quantum"), and any other Person that may hereafter become a party to this Agreement as a grantor of liens under the Intellectual Property Security Agreement described below, collectively, "Grantors" and each a "Grantor"), in favor of TCW ASSET MANAGEMENT COMPANY LLC, in its capacity as "Agent" under the Credit Agreement referenced below (in such capacity, together with its successors and permitted assigns, the "Agent");

WITNESSETH

WHEREAS, Grantors and Agent are parties to a certain Intellectual Property Security Agreement, dated as of October 21, 2016 (as amended, modified, supplemented, renewed, restated or replaced from time to time, the "IP Security Agreement"). Capitalized terms used herein but not otherwise defined herein shall have the meanings given to such terms in the IP Security Agreement;

WHEREAS, pursuant to the IP Security Agreement, to secure the prompt payment and performance of all Obligations to Agent and each other Secured Party, Grantors have assigned, pledged and granted to Agent, for its benefit and for the ratable benefit of the other Secured Parties, a continuing security interest in and to and lien upon all of such Grantor's right, title and interest in, to and under the Intellectual Property Collateral of each Grantor, all whether now owned or hereafter created, arising and/or acquired; and

WHEREAS, pursuant to the IP Security Agreement, Grantors have agreed that upon the acquisition by any Grantor of any new Intellectual Property Collateral, Grantors shall deliver to Agent a Supplement to the IP Security Agreement in the form of Exhibit A thereto pursuant to which Grantors shall reconfirm the grant by them of a security interest in and lien upon all such newly acquired Intellectual Property Collateral, which such Supplement is intended by the parties to be filed with the United States Patent and Trademark Office and/or United States Copyright Office, as applicable,

NOW, THEREFORE, in consideration of the premises set forth herein and for other good and valuable consideration, receipt and sufficiency of which are hereby acknowledged by each party hereto, and intending to be legally bound, and with the foregoing background and recitals incorporated by reference, Grantors agree as follows:

1. Grant and Reaffirmation of Grant of Security Interests. Without limiting any other grant of any security interest or lien by any Grantor in and upon any Collateral under the Credit Agreement or any of the Other Documents, to secure the prompt payment and performance of all Obligations to Agent and the other Secured Parties, each Grantor hereby assigns, pledges and grants to Agent, for its benefit and for the ratable benefit of the other Secured Parties, a continuing security interest in and to and lien upon all of such Grantor's right, title and interest in, to and

under the following Collateral of such Grantor, all whether now owned or hereafter created, arising and/or acquired: the newly acquired Intellectual Property Collateral listed on Schedule 1 to this Supplement (together with all reissues, reexaminations, continuations, continuations-in-part, divisionals, renewals and extensions of the foregoing). Grantors agree that all such newly acquired Intellectual Property Collateral described above shall be included in and be part of the Intellectual Property Collateral under and subject to all of the terms and provisions of the IP Security Agreement. Grantors hereby authorize Agent to file and record a copy of this Supplement with the United States Patent and Trademark Office and/or United States Copyright Office, as applicable.


2. Incorporation of the IP Security Agreement. The terms and provisions of the IP Security Agreement are hereby incorporated by reference and this Supplement shall be considered an amendment and supplement to and part of the IP Security Agreement; all of the provisions of which IP Security Agreement are and remain in full force and effect as supplemented by this Supplement.

[Remainder of Page Left Intentionally Blank]

IN WITNESS WHEREOF, Grantors have duly executed this Supplement to the IP Security Agreement as of the date first written above.

GRANTORS:

QUANTUM CORPORATION

Signature: 

Email: mike.dodson@quantum.com

Title: CFO

Company: Quantum Corporation

ACCEPTED AND AGREED
as of the date first above written:

TCW ASSET MANAGEMENT COMPANY
LLC,
as Agent

By: 

Name: Mike Gentry

Title: Manager Director

SCHEDULE I

TO SUPPLEMENT TO INTELLECTUAL PROPERTY SECURITY AGREEMENT

DATED AUGUST 7, 2018

PATENTS

<u>PATENT</u>	<u>APPLICATION NUMBER</u>	<u>FILE DATE</u>
Method for reliable and efficient filesystem metadata conversion	15/592,179	5/10/17
Log structured block device for hard disk drive	15/804,238	11/6/17
Dynamically controlling erasure code distribution in an object store	15/631,486	6/23/17
Garbage collection and defragmentation for solid state drives (SSD) and shingled magnetic recording (SMR) devices	15/618,723	6/9/17
Data deduplication with adaptive erasure code redundancy	15/602,726	5/23/17
Object synthesis	15/468,405	3/24/17
File level recovery using virtual machine image level backup with selective compression	15/421,583	2/1/17
Data replica control	15/400,265	1/6/17
Data aware deduplication object storage (DADOS)	15/386,484	12/21/16
Sequential access storage and data de-duplication	15/385,023	12/20/16
Heuristic journal reservations	15/383,532	12/19/16
Unsuccessful storage media movement handling in automated removable storage media environments	15/372,169	12/7/16
Mitigating the impact of a single point of failure in an object store	15/370,155	12/6/16
Dynamically configuring erasure code redundancy and distribution	15/365,287	11/30/16
Metadata storage in unused portions of a virtual disk file	15/360,774	11/23/16
Efficient stat storage across multiple storage volumes each representing a track of a larger storage volume	15/352,475	11/15/16
Removable media based object store	15/340,691	11/1/16
Heuristic journal reservations	15/339,024	10/31/16

TRADEMARKS

TRADEMARK	COUNTRY	APPL. DATE	APPL. NO.	REG. DATE	REG. NO.
QUANTUM CERTIFIED	USA	6/17/16	87/075,198	12/26/17	5365782
ARTICO	USA	3/12/15	86/562,171	10/31/17	5324222
XCELLIS	USA	9/9/15	86/751,489	5/30/17	5214652

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None.