# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5187064

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

## **CONVEYING PARTY DATA**

Name	Execution Date
TI ACQUISITION CORP.	10/03/2018

## **RECEIVING PARTY DATA**

Name:	TRIPLEPOINT CAPITAL LLC
Street Address:	2755 SAND HILL ROAD, SUITE 150
City:	MENLO PARK
State/Country:	CALIFORNIA
Postal Code:	94025

### **PROPERTY NUMBERS Total: 96**

Property Type	Number
Patent Number:	9135033
Application Number:	61343385
Patent Number:	9535739
Application Number:	13094639
Application Number:	61343383
Patent Number:	8463825
Application Number:	61343384
Patent Number:	8909894
Application Number:	61453356
Patent Number:	9256474
Patent Number:	9128910
Application Number:	61453362
Patent Number:	9569131
Patent Number:	9921758
Patent Number:	9529808
Application Number:	61672165
Application Number:	15343070
Application Number:	14043485
Application Number:	61709062
Application Number:	61777342

PATENT REEL: 047229 FRAME: 0463

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Property Type	Number
Patent Number:	9817835
Application Number:	15690626
Patent Number:	9710475
Application Number:	14472834
Application Number:	61873241
Application Number:	14594479
Application Number:	61926674
Patent Number:	9632812
Application Number:	61991995
Patent Number:	9946604
Application Number:	62111833
Application Number:	15915299
Application Number:	15013872
Application Number:	62111842
Application Number:	15074492
Application Number:	62136231
Patent Number:	9990263
Application Number:	62136216
Application Number:	15973233
Application Number:	14709341
Application Number:	15092048
Application Number:	62144511
Application Number:	15092345
Application Number:	62144518
Application Number:	15092054
Application Number:	15092363
Application Number:	15271156
Application Number:	15282120
Application Number:	15269395
Application Number:	15803407
Application Number:	62427744
Application Number:	15848330
Application Number:	62436994
Application Number:	15830352
Application Number:	62465525
Application Number:	15834421
Application Number:	62465029
Application Number:	15886156

Property Type	Number
Application Number:	62482028
Application Number:	15693244
Application Number:	62448251
Application Number:	15693245
Application Number:	62448255
Application Number:	15693249
Application Number:	62448253
Application Number:	15693251
Application Number:	62448257
Application Number:	15877072
Application Number:	62449942
Application Number:	15702557
Application Number:	62464219
Application Number:	15975483
Application Number:	62503715
Application Number:	62531633
Application Number:	62551141
Application Number:	62551144
Application Number:	62551146
Application Number:	62551149
Application Number:	62551151
Application Number:	62551152
Application Number:	62551154
Application Number:	62551156
Application Number:	62550936
Application Number:	62551158
Application Number:	62551162
Application Number:	62551129
Application Number:	62551164
Application Number:	62551139
Application Number:	62551161
Application Number:	62577614
Application Number:	15830345
Application Number:	62610031
Application Number:	62627866
Application Number:	62625451
Application Number:	62647073
Application Number:	15975494

#### **CORRESPONDENCE DATA**

**Fax Number:** (310)277-4730

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:** 310.284.6133

**Email:** Grosenbaum@mwe.com, mrostovtsev@mwe.com,

cvicino@mwe.com

Correspondent Name: GARY B. ROSENBAUM

Address Line 1: MCDERMOTT WILL & EMERY LLP

Address Line 2: 2049 CENTURY PARK EAST, SUITE 3800

Address Line 4: LOS ANGELES, CALIFORNIA 90067

ATTORNEY DOCKET NUMBER:	82853-087
NAME OF SUBMITTER:	GARY B. ROSENBAUM
SIGNATURE:	/Gary B. Rosenbaum/
DATE SIGNED:	10/13/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).

### **Total Attachments: 14**

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#### PLAIN ENGLISH INTELLECTUAL PROPERTY SECURITY AGREEMENT

This is a Plain English Intellectual Property Security Agreement dated as of October 3, 2018 by and between TRIPLEPOINT CAPITAL LLC, a Delaware limited liability company, and TI ACQUISITION CORP., a Delaware corporation (the "Agreement").

The words "We", "Us", or "Our", refer to the grantee, which is TRIPLEPOINT CAPITAL LLC. The words "You" or "Your" refers to the grantor, which is TI ACQUISITION CORP. and not any individual. The words "the Parties" refers to both TRIPLEPOINT CAPITAL LLC and TI ACQUISITION CORP.

The Parties have entered into a Plain English Loan and Security Agreement dated as of August 31, 2018 (together with amendments, supplements, extensions and exhibits, and as amended, restated, supplemented or otherwise modified to the date hereof, collectively the "Underlying Security Agreement"). Pursuant to the Underlying Security Agreement, You have granted to Us a lien on and a security interest in all the present and future rights, title, and interest that You may now have or hereafter acquire in all Patents, Trademarks, Copyrights, and applications for Patents, Trademarks and Copyrights.

In consideration for the mutual covenants and agreements contained in the Underlying Security Agreement and this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are acknowledged, the Parties agree as follows:

### 1. GRANT OF SECURITY INTEREST

You grant to Us a lien upon and continuing security interest in all of Your right, title, and interest in, to and under all of the following (all of the following items of property collectively will be referred to as the "Intellectual Property Collateral"), whether now existing or hereafter arising or acquired:

- ⇒ all Patents, Patent Licenses, and Patent applications, including specifically those listed on the attached **Schedule A**, together with any reissues, divisions, continuations, renewals, extensions and continuations thereof:
- ⇒ all Trademarks, Trademark Licenses, and trademark applications, including specifically those listed on the attached **Schedule B** together with any renewals thereof;
- ⇒ all Copyrights, Copyright Licenses, and applications for Copyrights, including specifically those listed on the attached **Schedule C**;
- ⇒ the right to sue for past, present and future infringements of the foregoing and all rights corresponding thereto throughout the world and all re-issues, divisions continuations, renewals, extensions and continuations-in-part thereof; and
- ⇒ all Proceeds.

You represent and warrant to Us that Schedules A, B, and C attached hereto set forth any and all intellectual property rights in connection to which You have registered or filed an application with either the United States Patent and Trademark Office or the United States Copyright Office, as applicable.

#### 2. Underlying Security Agreement

This security interest is granted to secure the Secured Obligations, under the Underlying Security Agreement. All the capitalized terms used but not otherwise defined are used in this Agreement with the same meaning as defined in the Underlying Security Agreement.

### 3. OUR RIGHT TO SUE

Error! Unknown document property name.

From and after an Event of Default, subject to the terms of the Underlying Security Agreement, We shall have the right, but shall in no way be obligated, to bring suit in Our own name to enforce Your rights in the Intellectual Property Collateral. If We commence any such suit, You shall, at Our request, do all lawful acts and execute and deliver all proper documents or information that may be necessary or desirable to aid Us in such enforcement. You shall promptly, upon demand, reimburse and indemnify Us for all of Our costs and expenses, including reasonable attorney's fees, related to Our exercise of the above mentioned rights.

#### 4. FURTHER ASSURANCES

You will from time to time execute, deliver and file, alone or with Us, any security agreements, or other documents to perfect and give priority to Our lien on the Intellectual Property Collateral. You will from time to time obtain any instruments or documents as We may request, and take all further action that may be reasonably necessary or desirable, or that We may reasonably request, to carry out more effectively the provisions and purposes of this Agreement or any other related agreements or to confirm, perfect, preserve and protect the liens granted to Us.

#### 5. MODIFICATION

This Agreement can only be altered, amended or modified in a writing signed by the Parties. Notwithstanding the foregoing however, You hereby irrevocably appoint Us (and any of Our designated officers, agents or employees) as Your true and lawful attorney to modify, in Our sole discretion, this Agreement without first obtaining Your approval of or signature to such modification by amending Schedules A, B, and C to this Agreement, as appropriate, to include reference to any right, title or interest in any Intellectual Property Collateral acquired by You before or after the execution hereof or to delete any reference to any right, title or interest in any Intellectual Property Collateral in which You no longer have or claim to have any right, title or interest. The appointment of Us as Your attorney in fact, and each and every one of Our rights and powers, being coupled with an interest, is irrevocable until all of the Secured Obligations have been Paid in Full.

#### 6. BINDING EFFECT; REMEDIES NOT EXCLUSIVE

This Agreement shall be binding upon You and Your respective successors and assigns, and shall inure to the benefit of Us, and Our nominees and assigns.

Our rights and remedies with respect to the security interest granted hereby are in addition to those set forth in the Underlying Security Agreement and the other Loan Documents, and those which are now or hereafter available to Us as a matter of law or equity. Each of Our rights, powers and remedies provided for herein or in the Underlying Security 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 Us of any one or more of the rights, powers or remedies provided for in this Agreement, the Underlying Security 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 Us, of any or all other rights, powers or remedies.

#### 7. GOVERNING LAW; COUNTERPARTS

This Agreement shall be deemed made and accepted in and shall be governed by and construed in accordance with the laws of the State of California, and (where applicable) the laws of the United States of America.

This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute the same instrument.

(Signature Page to Follow)

IN WITNESS WHEREOF, You have duly executed this Agreement as of the date first set forth above.

You: TI ACQUISITION CORP.

Signature:

Print Name: Alex Bouzari

Title: Chief Executive Officer

[SIGNATURE PAGE TO PLAIN ENGLISH INTELLECTUAL PROPERTY SECURITY AGREEMENT – TI ACQUISITION CORP.]

### SCHEDULE A

To Plain English Intellectual Property Security Agreement Between TI ACQUISITION CORP., as You (Grantor) and TRIPLEPOINT CAPITAL LLC, as Us (Grantee)

### PATENTS AND PATENT APPLICATIONS

See attached.

Firm Clic Reference Ref	Client Reference	Country F	Patent Type	Status	Application Number	Filed Date	Patent Number	Granted Date	Title
TINTP001		United States of N	Non Provisional	Granted	13/094,636	04/26/2011	9,135,033	09/15/2015	VIRTUAL MACHINE STORAGE
TINTP001+		tates of	Provisional	Expired	61/343,385	04/27/2010			STORING AND MANAGING VIRTUAL MACHINE STORAGE USING VIRTUAL MACHINE ABSTRACTIONS
TINTP001C1			Non Provisional	Granted	14/717,764	05/20/2015	9,535,739	01/03/2017	VIRTUAL MACHINE STORAGE
TINTP002		United States of America	Non Provisional Application	Application	13/094,639	04/26/2011			RESOURCE ALLOCATION FOR VIRTUAL MACHINE STORAGE
TINTP002+		tates of	Provisional	Expired	61/343,383	04/27/2010			RESOURCE ALLOCATION FOR VIRTUAL MACHINE STORAGE
TINTP003		United States of N	Non Provisional	Granted	13/094,682	04/26/2011	8,463,825	06/11/2013	HYBRID FILE SYSTEM FOR VIRTUAL MACHINE STORAGE
TINTP003+		tates of	Provisional	Expired	61/343,384	04/27/2010			HYBRID FLASH-DISK FILE SYSTEM FOR VIRTUAL MACHINE STORAGE
TINTP004			Non Provisional Granted	Granted	13/421,712	03/15/2012	8,909,894	12/09/2014	AUTOMATICALLY ALIGNING VIRTUAL BLOCKS TO PHYSICAL BLOCKS
TINTP004+			Provisional	Expired	61/453,356	03/16/2011			AUTOMATICALLY ALIGNING BLOCKS OF VIRTUAL DISKS FOR VMS
TINTP004C1			Non Provisional	Granted	14/509,857	10/08/2014	9,256,474	02/09/2016	AUTOMATICALLY ALIGNING VIRTUAL BLOCKS TO PHYSICAL BLOCKS
TINTP005		United States of N	Non Provisional	Granted	13/421,714	03/15/2012	9,128,910	09/08/2015	AVOIDING LONG ACCESS LATENCIES IN REDUNDANT STORAGE SYSTEMS
TINTP005+			Provisional	Expired	61/453,362	03/16/2011			AVOIDING LONG DISK ACCESS LATENCIES IN REDUNDANT STORAGE SYSTEMS
TINTP005C1		United States of N	Non Provisional	Granted	14/814,280	07/30/2015	9,569,131	02/14/2017	AVOIDING LONG ACCESS LATENCIES IN REDUNDANT STORAGE SYSTEMS
TINTP005C2			Non Provisional	Granted	15/382,869	12/19/2016	9,921,758	03/20/2018	AVOIDING LONG ACCESS LATENCIES IN REDUNDANT STORAGE SYSTEMS
TINTP006			Non Provisional	Granted	13/938,005	07/09/2013	9,529,808	12/27/2016	EFFICIENT AND FLEXIBLE ORGANIZATION AND MANAGEMENT OF FILE METADATA
TINTP006+		United States of F America	Provisional	Expired	61/672,165	07/16/2012			EFFICIENT AND FLEXIBLE ORGANIZATION AND MANAGEMENT OF FILE METADATA
TINTP006C1		tates of	Non Provisional	Published	15/343,070	11/03/2016			EFFICIENT AND FLEXIBLE ORGANIZATION AND MANAGEMENT OF FILE METADATA
TINTP007		tates of	Non Provisional Application	Application	14/043,485	10/01/2013			USING A CONTROL VIRTUAL DISK FOR STORAGE MANAGEMENT
TINTP007+		tates of	Provisional	Expired	61/709,062	10/02/2012			USING A CONTROL VIRTUAL DISK FOR SELF- SERVICE STORAGE MANAGEMENT
TINTP008+			Provisional	Expired	61/777,342	03/12/2013			EFFICIENT DATA SYNCHRONIZATION FOR STORAGE CONTAINERS
TINTP008N		tates of	Non Provisional	Granted	14/202,836	03/10/2014	9,817,835	11/14/2017	EFFICIENT DATA SYNCHRONIZATION FOR STORAGE CONTAINERS
TINTP008NC1		tates of	Non Provisional	Published	15/690,626	08/30/2017			EFFICIENT DATA SYNCHRONIZATION FOR STORAGE CONTAINERS
TINTP008NEP	J		Non Provisional	Published	14778982	03/11/2014			EFFICIENT DATA SYNCHRONIZATION FOR STORAGE CONTAINERS
TINTP008NPC T	)	Patent Cooperation Treaty	Non Provisional	Published	PCT/US14/23486	03/11/2014			EFFICIENT DATA SYNCHRONIZATION FOR STORAGE CONTAINERS
TINTP009		United States of N	Non Provisional	Granted	13/938,011	07/09/2013	9,710,475	07/18/2017	SYNCHRONIZATION OF DATA

NATIVE STORAGE QUALITY OF SERVICE FOR VIRTUAL MACHINES			04/06/2016	15/092,345	Published	Non Provisional Published	United States of America	TINTP019
ADAPTING STORAGE DEVICE BEHAVIOR TO STORAGE MIGRATION			04/08/2015	62/144,511	Expired	Provisional	United States of America	TINTP018+
OPTIMIZED SERVICING OF REQUESTS RELATED TO A BULK DATA TRANSFER			04/06/2016	15/092,048	Application	Non Provisional Application	United States of America	TINTP018
CLUSTER VIRTUAL MACHINES			05/11/2015	14/709,341	Application	Non Provisional	United States of America	TINTP017
EFFICIENT USE OF SPARE DEVICE(S) ASSOCIATED WITH A GROUP OF DEVICES			05/07/2018	15/973,233	Application	Non Provisional	United States of America	TINTP016C1
EFFICIENT USE OF SPARE DRIVE(S) TO IMPROVE RELIABILITY AND PERFORMANCE OF PARITY-ENCODED RAIDS			03/20/2015	62/136,216	Expired	Provisional	United States of America	TINTP016+
EFFICIENT USE OF SPARE DEVICE(S) ASSOCIATED WITH A GROUP OF DEVICES	06/05/2018	9,990,263	03/18/2016	15/074,501	To Be Issued	Non Provisional	United States of America	TINTP016
DETECTING AND PIN-POINTING DATA CORRUPTION			03/20/2015	62/136,231	Expired	Provisional	United States of America	TINTP015+
DETECTING AND PINPOINTING DATA CORRUPTION			03/18/2016	15/074,492	Application	Non Provisional	United States of America	TINTP015
FINE-GRAINED STORAGE ARRAY-BASED RESTORE OF GUEST OPERATING SYSTEM FILES FROM VIRTUAL MACHINE SNAPSHOTS			02/04/2015	62/111,842	Expired	Provisional	United States of America	TINTP014+
FINE-GRAINED STORAGE SYSTEM-BASED RESTORE OF FILES FROM VIRTUAL MACHINE SNAPSHOTS			02/02/2016	15/013,872	Application	Non Provisional	United States of America	TINTP014
OPTIMIZED REMOTE CLONING			03/08/2018	15/915,299	Application	Non Provisional Application	United States of America	TINTP013C1
MIGRATION OF DATA FILES IN SNAPSHOTS			02/04/2015	62/111,833	Expired	Provisional	United States of America	TINTP013+
OPTIMIZED REMOTE CLONING	04/17/2018	9,946,604	02/02/2016	15/013,859	Granted	Non Provisional	United States of <sub>I</sub>	TINTP013
SYNTHETIC VIRTUAL MACHINES			05/12/2014	61/991,995	Expired	Provisional	United States of America	TINTP012+
COLLECTING DATA ASSOCIATED WITH VIRTUAL MACHINES FROM VARIOUS DATA SOURCES	04/25/2017	9,632,812	05/11/2015	14/709,332	Granted	Non Provisional	United States of America	TINTP012
CONSTANT-TIME RECOVERY OF IN-MEMORY STATE IN A LOG-STRUCTURED FILE SYSTEM USING SELF-THROTTLED FUZZY CHECKPOINTS			01/13/2014	61/926,674	Expired	Provisional	United States of America	TINTP011+
RECOVERY OF IN-MEMORY STATE IN A LOG- STRUCTURED FILESYSTEM USING FUZZY CHECKPOINTS			01/12/2015	14/594,479	Application	Non Provisional	United States of America	TINTP011
REPLICATION OF SNAPSHOTS AND CLONES			09/02/2014	PCT/US14/53709	Expired	Non Provisional	Patent Cooperation Treaty	TINTP010PCT
REPLICATION OF SNAPSHOTS AND CLONES	03/23/2018	6309103	09/02/2014	2016-537937	Granted	Non Provisional	Japan	TINTP010JP
REPLICATION OF SNAPSHOTS AND CLONES			09/02/2014	14841628.2	Published	Non Provisional	European	TINTP010EP
REPLICATION OF SNAPSHOTS AND CLONES			09/03/2013	61/873,241	Expired	Provisional	United States of America	TINTP010+
REPLICATION OF SNAPSHOTS AND CLONES			08/29/2014	14/472,834	Published	United States of Non Provisional Published America	United States of America	TINTP010

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2016-009	2010-009	2016-009	2016-005	2016-005	2016-006	2016-006											2016-012		2016-007			Г			
America	America United States of	United States of	United States of	United States of America	United States of America	United States of America	United States America	United States of America	United States of America	United States - America	United States of America	United States of America	United States of America	United States of America	United States of America	United States of America	United States of America	United States of America	United States of America	United States of America	States a	Patent Cooperation Treaty	Japan	European	United States of America
Provisional			<sup>of</sup> Provisional	<sup>of</sup> Non Provisional	of Provisional	of Non Provisional	of Provisional	of Non Provisional	of Provisional	<sup>of</sup> Non Provisional	of Provisional	<sup>of</sup> Non Provisional	<sup>of</sup> Provisional	<sup>of</sup> Non Provisional	<sup>of</sup> Provisional	<sup>of</sup> Non Provisional Application	<sup>of</sup> Non Provisional	<sup>of</sup> Non Provisional	<sup>of</sup> Non Provisional	<sup>of</sup> Non Provisional	<sup>of</sup> Non Provisional	Non Provisional	Non Provisional	Non Provisional	<sup>of</sup> Provisional
Expired	- 1		Expired	al Application	Expired	al Application	Converted	al Application	Expired	al Application	Expired	al Application	Expired	al Application	Expired	al Application	al Application	al Application	al Application	l Published	al Application	Application	al Application	al Published	Expired
62/448,253	10/090,249	15/603 240	62/448,255	15/693,245	62/448,251	15/693,244	62/482,028	15/886,156	62/465,029	15/834,421	62/465,525	15/830,352	62/436,994	15/848,330	62/427,744	15/803,407	15/269,395	15/282,120	15/271,156	15/092,363	15/092,054	PCT/US16/26229	2017-552839	16777208.6	62/144,518
01/19/2017	00/31/2017	08/31/2017	01/19/2017	08/31/2017	01/19/2017	08/31/2017	04/05/2017	02/01/2018	02/28/2017	12/07/2017	03/01/2017	12/04/2017	12/20/2016	12/20/2017	11/29/2016	11/03/2017	09/19/2016	09/30/2016	09/20/2016	04/06/2016	04/06/2016	04/06/2016	04/06/2016	04/06/2016	04/08/2015
MIGRATED VM	MIGRATED VM  MODELING SPACE CONSUMPTION OF A	MODELING SPACE CONSUMPTION OF A	FLASH MISS RATE PREDICTION IN A HYBRID STORAGE SYSTEM	ACCESS RATE PREDICTION IN A HYBRID STORAGE DEVICE	LOAD BALANCING USING PREDICTIVE VM- BASED ANALYTICS	LOAD BALANCING USING PREDICTIVE VM- BASED ANALYTICS	HIDING HIGH WRITE LATENCIES FROM TRANSIENTLY MISBEHAVING DRIVES IN A RAID SUBSYSTEM	HANDLING A DEVICE IN A LATENCY STATE IN A REDUNDANT STORAGE SYSTEM	DYNAMIC BLOCK OPTIMIZATION FOR SPACE AND PERFORMANCE	DYNAMIC BLOCK OPTIMIZATION FOR SPACE AND PERFORMANCE	EFFICIENT DEDUPLICATION FOR HIGH CAPACITY SYSTEMS	EFFICIENT DEDUPLICATION FOR STORAGE SYSTEMS	POLICY-DRIVEN RAID REBUILD	POLICY-DRIVEN RAID REBUILD	BALANCED WEAR LEVELING IN A RAID GROUP USING SPARE SSDS	BALANCED WEAR LEVELING IN AN SSD RAID GROUP USING ROTATED SPARING	FAST CONTAINER DISTRIBUTION WITH STORAGE ACCELERATION	EFFICIENT DELETION OF SHARED SNAPSHOTS	MULTI-TIER MECHANISM TO ACHIEVE HIGH AVAILABILITY IN A MULTI-CONTROLLER SYSTEM	AUTO ALLOCATION OF STORAGE SYSTEM RESOURCES TO HETEROGENEOUS CATEGORIES OF RESOURCE CONSUMER	ADJUSTING STORAGE SYSTEM BEHAVIOR TO STORAGE MIGRATION	NATIVE STORAGE QUALITY OF SERVICE FOR VIRTUAL MACHINES	NATIVE STORAGE QUALITY OF SERVICE FOR VIRTUAL MACHINES	NATIVE STORAGE QUALITY OF SERVICE FOR VIRTUAL MACHINES	NATIVE STORAGE QUALITY OF SERVICE FOR VIRTUAL MACHINES WITH PER-VM CONTENTION VISUALIZATION AND AUTO ALLOCATION POLICIES

TINTP044+ 2017-017	TINTP044 2017-017	TINTP043+ 2017-015	TINTP043 2017-015	TINTP042+ 2017-014	TINTP042 2017-014	TINTP041+ 2017-013	TINTP041 2017-013	TINTP040+ 2017-012	TINTP040 2017-012	TINTP039+ 2017-011	TINTP039 2017-011	TINTP038+ 2017-010	TINTP038 2017-010	TINTP037+ 2017-002	TINTP037	TINTP036+ 2017-005	TINTP036	TINTP035+	TINTP035	TINTP034+ 2016-013	TINTP034	TINTP033+ 2016-011	TINTP033 2016-011
United States of Provisional America	, United States of Non Provisional America					United States of Provisional America	United States of Non Provisional America			United States of Provisional America	United States of Non Provisional America	United States of Provisional America			United States of Non Provisional America			United States of Provisional America	United States of Non Provisional America	United States of Provisional America	United States of Non Provisional America		United States of America
Application	nal To Be Filed	Application	nal To Be Filed	Application	nal To Be Filed	Application	nal To Be Filed	Application	nal To Be Filed	Application	nal To Be Filed	Application	nal To Be Filed	Abandoned	nal Cancelled	Converted	Non Provisional Application	Expired	nal Application	Expired	nal Application	Expired	Non Provisional Application
62/551,154		62/551,152		62/551,151		62/551,149		62/551,146		62/551,144		62/551,141		62/531,633		62/503,715	15/975,483	62/464,219	15/702,557	62/449,942	15/877,072	62/448,257	15/693,251
08/28/2017		08/28/2017		08/28/2017		08/28/2017		08/28/2017		08/28/2017		08/28/2017		07/12/2017		05/09/2017	05/09/2018	02/27/2017	09/12/2017	01/24/2017	01/22/2018	01/19/2017	08/31/2017
NON-DISRUPTIVE DYNAMIC UNCONFIGURATION OF LOGICAL SYNCHRONOUS REPLICATION	NON-DISRUPTIVE DYNAMIC UNCONFIGURATION OF LOGICAL SYNCHRONOUS REPLICATION	SYNCHRONOUS REPLICATION END TO END  LATENCY REPORTING	SYNCHRONOUS REPLICATION END TO END  LATENCY REPORTING	DISTRIBUTED FILESYSTEM INTEGRITY VERIFICATION	DISTRIBUTED FILESYSTEM INTEGRITY VERIFICATION	RESYNCHRONIZING A SYNCHRONOUSLY REPLICATED DIRECTORY USING A COMBINATION OF METHODS	RESYNCHRONIZING A SYNCHRONOUSLY REPLICATED DIRECTORY USING A COMBINATION OF METHODS	SYNCHRONOUS REPLICATION OF LOGICAL FILESYSTEM OPERATIONS	SYNCHRONOUS REPLICATION OF LOGICAL FILESYSTEM OPERATIONS	SYNCHRONOUS REPLICATION OF WRITE OPERATIONS TO ENSURE IDENTICAL CONTENT	SYNCHRONOUS REPLICATION OF WRITE OPERATIONS TO ENSURE IDENTICAL CONTENT	LOGICAL SYNCHRONOUS REPLICATION SYSTEM	LOGICAL SYNCHRONOUS REPLICATION SYSTEM	VOICE OPERATED INFRASTRUCTURE	VOICE OPERATED INFRASTRUCTURE	VM DATA MIGRATION BETWEEN STORAGE DEVICES	VM DATA MIGRATION BETWEEN STORAGE DEVICES	DYNAMIC RAID EXPANSION	DYNAMIC RAID EXPANSION	METHOD TO FACILITATE AUTOMATIC DATA PROTECTION FOR VIRTUAL MACHINES USING VIRTUAL MACHINE ATTRIBUTES	AUTOMATIC DATA PROTECTION FOR VIRTUAL MACHINES USING VIRTUAL MACHINE ATTRIBUTES	LOAD BALANCING VM SELECTION AND MOVEMENT	LOAD BALANCING VM SELECTION AND MOVEMENT

ENCRYPTION KEY MANGAEMENT FOR THE PURPOSE OF REPLICATING SNAPSHOTS TO THE CLOUD FROM A CLUSTER OF LOOSELY COUPLED NODES			I To Be Filed	United States of Non Provisional To Be Filed America		TINTP052
EFFICIENT DIFFERENCING AND RESYNCHRONIZATION BETWEEN PRIMARY STORAGE SNAPSHOTS AND SNAPSHOTS IN A CLUSTER MANAGER TAKE OVER AND CLUSTER MANAGER TAKE OVER AND	08/28/2017	62/551,139	Application	United States of Provisional America	GAL-P10	TINTP051+
EFFICIENT DIFFERENCING AND RESYNCHRONIZATION BETWEEN PRIMARY STORAGE SNAPSHOTS AND SNAPSHOTS IN A CLOUD OBJECT STORE			I To Be Filed	United States of Non Provisional To Be Filed America		TINTP051
OWNERSHIP DELEGATION TO SURVIVE FAILURES IN A CLUSTER OF HETEROGENEOUS NODES, FOR THE PURPOSE OF MANAGING CLOUD SNAPSHOTS	08/28/2017	62/551,164	Application	United States of Provisional America	GAP-P8	TINTP050+
OWNERSHIP DELEGATION TO SURVIVE FAILURES IN A CLUSTER OF HETEROGENEOUS NODES, FOR THE PURPOSE OF MANAGING CLOUD SNAPSHOTS			I To Be Filed	United States of Non Provisional To Be Filed America		TINTP050
NAMING, SEQUENCING AND GLOBAL ENUMERATION OF VM SNAPSHOT JOBS IN A CLOUD OBJECT STORE, FROM A CLUSTER OF HETEROGENOUS AND LOOSELY COUPLED NODES	08/28/2017	62/551,129	Application	United States of Provisional America	GAL-P2	TINTP049+
NAMING, SEQUENCING AND GLOBAL ENUMERATION OF VM SNAPSHOT JOBS IN A CLOUD OBJECT STORE, FROM A CLUSTER OF HETEROGENOUS AND LOOSELY COUPLED NODES			I To Be Filed	United States of Non Provisional To Be Filed America		TINTP049
DATA SHARING BETWEEN CLOUD SNAPSHOTS AND SAFELY RECLAIMING UNUSED SPACE OF DELETED SNAPSHOTS CONTAINING SHARED DATA	08/28/2017	62/551,162	Application	United States of Provisional America	GAL-P4	TINTP048+
DATA SHARING BETWEEN CLOUD SNAPSHOTS AND SAFELY RECLAIMING UNUSED SPACE OF DELETED SNAPSHOTS CONTAINING SHARED DATA			I To Be Filed	United States of Non Provisional America		TINTP048
CUSTOM AND FLEXIBLE SCHEDULES FOR REPLICATING SNAPSHOTS	08/28/2017	62/551,158	Application	United States of Provisional America	GAL-P13	TINTP047+
CUSTOM AND FLEXIBLE SCHEDULES FOR REPLICATING SNAPSHOTS			I To Be Filed	United States of Non Provisional America		TINTP047
VM BASED SNAPSHOT REPLICATION TO A CLOUD OBJECT STORE	08/28/2017	62/550,936	Application	United States of Provisional America	GAL-P1	TINTP046+
VM BASED SNAPSHOT REPLICATION TO A CLOUD OBJECT STORE			I To Be Filed	United States of Non Provisional America		TINTP046
GENERALIZED LOGICAL FILESYSTEM BARRIERS	08/28/2017	62/551,156	Application	United States of Provisional America	2017-016	TINTP045+
GENERALIZED LOGICAL FILESYSTEM BARRIERS			I To Be Filed	United States of Non Provisional America	2017-016	TINTP045

HYPERVISOR REMOTE OFFLOAD FOR VM DATA MIGRATION BETWEEN STORAGE DEVICES	05/09/2018	15/975,494	al Application	United States of Non Provisional Application America		TINTP059
OPTIMIZING A STORAGE SYSTEM SNAPSHOT RESTORE BY EFFICIENTLY FINDING DUPLICATE DATA	03/23/2018	62/647,073	Application	United States of Provisional America	GAL-P14	TINTP058+
OPTIMIZING A STORAGE SYSTEM SNAPSHOT RESTORE BY EFFICIENTLY FINDING DUPLICATE DATA			al To Be Filed	United States of Non Provisional To Be Filed America		TINTP058
CHECKSUMS TO VERIFY INTEGRITY OF A SNAPSHOT	02/02/2018	62/625,451	Application	United States of Provisional America	GAL-P7	TINTP057+
CHECKSUMS TO VERIFY INTEGRITY OF A SNAPSHOT			al To Be Filed	United States of Non Provisional America		TINTP057
DRIVE-BY-DRIVE EXPANSION WITH ESTIMATOR	02/08/2018	62/627,866	Application	United States of Provisional America		TINTP056+
DELETION AND SPACE RECLAMATION OF INCOMPLETE SNAPSHOT IMAGES ON AN EVENTUALLY CONSISTENT KEY VALUE STORE	12/22/2017	62/610,031	Application	United States of Provisional America	GAL-P12	TINTP055+
DELETION AND SPACE RECLAMATION OF INCOMPLETE SNAPSHOT IMAGES ON AN EVENTUALLY CONSISTENT KEY VALUE STORE			al To Be Filed	United States of Non Provisional To Be Filed America		TINTP055
DATA FOR HIGH CAPACITY SYSTEMS	12/04/2017	15/830,345	al Application	United States of Non Provisional Application America		TINTP054
NEAR-INSTANT TRANSLATION OF ONE VIRTUAL DISK FORMAT TO ANOTHER	10/26/2017	62/577,614	Application	United States of Provisional America		TINTP053+
CLUSTER MANAGER TAKE OVER AND ENCRYPTION KEY MANGAEMENT FOR THE PURPOSE OF REPLICATING SNAPSHOTS TO THE CLOUD FROM A CLUSTER OF LOOSELY COUPLED NODES	08/28/2017	62/551,161	Application	United States of Provisional America	GAL-P3	TINTP052+

### **SCHEDULE B**

To Plain English Intellectual Property Security Agreement Between TI ACQUISITION CORP., as You (Grantor) and TRIPLEPOINT CAPITAL LLC, as Us (Grantee)

### TRADEMARKS AND TRADEMARK APPLICATIONS

See attached.

			Trademark Reference		Mask Type	Dogument Links	Secondary Status	Application Type	Country	Status		Filed Date	Infernational Classes	Mark Image
M Application	03525.T001.JP - Registered -	81049911	03525.T001.JP	TINTRI GLOBAL	Word - Block Letters				Japan	Registered	1202850	2/26/2014	42,9	
	JP - 1202850 - TINTRI			CENTER						:				
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	03525.T001.W O - Registered	81049912	03525.T001.WO	TINTRI GLOBAL	:Word - Block :Letters			:	European Union IPO	Registered	A0041047	2/26/2014	:42,9	
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	Word - Block Letters							:	•					
	03525.T001CA	81049913	03525.T001CA	TINTRI	:Word - Block	:			Canada	Registered	1665561	2/26/2014	:42,9	
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Application:	03525.T001W	81049923	03525.T001WO.NZ	TINTRI	:Word - Block				New Zealand	Registered	86048490	12/31/1899	:	
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Application	03525.T001W O.VN -	81049924	03525.T001WO.VN	TINTRI GLOBAL	:Word - Block :Letters				Vietnam	Registered	86048490	8/26/2013	42,9	
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Application	Letters 03525.T002US - Abandoned -	81049926	03525.T002US	FLASHFIRST	Word - Block Letters			:	United States of America	Abandone d	86080264	10/1/2013	9	
Application	Letters 03525.T002US	81049926	03525.T002US	FLASHFIRST	Word - Block Letters				United States of America	Abandone d	86080264	10/1/2013	9	

				Tint	ri, Inc. TM P	Tintri, Inc. TM Portfolio Status 2017	us 2017
COUNTRY	COUNTRY TRADEMARK	STATUS	APP. NO.	APP. DATE	REG. NO.	REG. DATE	APP. NO.   APP. DATE   REG. NO.   REG. DATE   CLASSES AND GOODS
SN	TINTRI	Registered	85184682	11/24/2010	4388495	8/20/2013	Registered   85184682   11/24/2010   4388495   8/20/2013   9] computer hardware and software for the purpose of virtual storage of data
		g				9	
SU	TINTRI VMSTORE	Registered	85184690	Registered 85184690 11/24/2010 4580391	4580391	8/5/2014	8/5/2014 [9] computer hardware and software for the purpose of virtual storage of data
							[9] Software for management of multiple storage devices; software for management of capacity and performance across multiple storage devices; software for optimizing performance of storage devices and virtual machines:
SN	TINTRI VM SCALEOUT Pending		86847058	12/1/2015			software for automating management of storage and performance policies for

### SCHEDULE C

To Plain English Intellectual Property Security Agreement Between TI ACQUISITION CORP., as You (Grantor) and TRIPLEPOINT CAPITAL LLC, as Us (Grantee)

### COPYRIGHTS AND COPYRIGHT APPLICATIONS

None.

PATENT REEL: 047229 FRAME: 0480

**RECORDED: 10/13/2018**