

## TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

ETAS ID: TM774588

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT		
<b>NATURE OF CONVEYANCE:</b>	RELEASE OF SECURITY INTEREST		
<b>CONVEYING PARTY DATA</b>			
<b>Name</b>	<b>Formerly</b>	<b>Execution Date</b>	<b>Entity Type</b>
COMERICA BANK		12/14/2022	Chartered Bank: TEXAS
<b>RECEIVING PARTY DATA</b>			
<b>Name:</b>	TIDALSCALE, INC.		
<b>Street Address:</b>	15466 Los Gatos Blvd, #109-156		
<b>City:</b>	Los Gatos		
<b>State/Country:</b>	CALIFORNIA		
<b>Postal Code:</b>	95032		
<b>Entity Type:</b>	Corporation: DELAWARE		
<b>PROPERTY NUMBERS Total: 5</b>			
<b>Property Type</b>	<b>Number</b>	<b>Word Mark</b>	
<b>Registration Number:</b>	4664354	TIDALSCALE	
<b>Registration Number:</b>	5425224	WAVERUNNER	
<b>Registration Number:</b>	5651373	WAVEWATCHER	
<b>Serial Number:</b>	90852901	TIDALGUARD	
<b>Serial Number:</b>	90870409	WAVEWATCHER	
<b>CORRESPONDENCE DATA</b>			
<b>Fax Number:</b>			
<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>Email:</b>	akwon@cov.com		
<b>Correspondent Name:</b>	COVINGTON & BURLING LLP		
<b>Address Line 1:</b>	ONE CITY CENTER, 850 TENTH ST NW		
<b>Address Line 2:</b>	ATTN: PATENT DOCKET		
<b>Address Line 4:</b>	WASHINGTON, D.C. 20001		
<b>ATTORNEY DOCKET NUMBER:</b>	32492.00161		
<b>NAME OF SUBMITTER:</b>	Ashley M. Kwon		
<b>SIGNATURE:</b>	/Ashley M. Kwon/		
<b>DATE SIGNED:</b>	12/15/2022		
<b>Total Attachments: 7</b>			

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**TERMINATION AND RELEASE OF INTELLECTUAL PROPERTY SECURITY AGREEMENT**

THIS TERMINATION AND RELEASE OF INTELLECTUAL PROPERTY SECURITY AGREEMENT (this "Termination"), is dated as of December 14, 2022, and made by COMERICA BANK (the "Grantee") to TIDALSCALE, INC., a Delaware corporation (the "Grantor").

WHEREAS, pursuant to the Intellectual Property Security Agreement, dated as of July 29, 2022, by and between Grantor and Grantee (the "Security Agreement"), a security interest was granted by Grantor to Grantee in certain collateral, including the Intellectual Property Collateral (as such term is defined in the Security Agreement);

WHEREAS, the Security Agreement was recorded at the United States Patent and Trademark Office on August 4, 2022 at Reel/Frame 060724/0458 in respect of the patents and patent applications and on August 4, 2022 at Reel/Frame 7812/0605 in respect of the trademarks and trademark applications; and

WHEREAS, Grantee now desires to terminate and release the Security Agreement;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, and upon the terms set forth in this Termination, Grantee hereby states as follows:

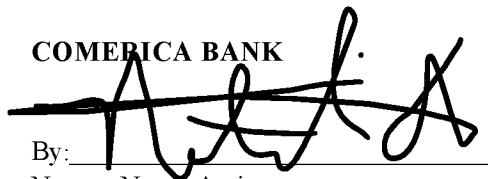
1. Definitions. Capitalized terms used but not otherwise defined herein shall have the respective meanings ascribed thereto in the Security Agreement.

1. Release of Security Interest. Grantee hereby terminates the Security Agreement and irrevocably terminates, releases and discharges the entirety of any and all liens or security interests that it may have in, and all claims to or in, the Intellectual Property Collateral (including without limitation those Copyrights, Patents and Trademarks listed on Schedules 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 and, without representation, recourse or warranty whatsoever, reassigns, transfers and conveys to Grantor all right, title and interest of Grantee in the Intellectual Property Collateral, and any right, title or interest of Grantee in such Intellectual Property Collateral shall hereby terminate, cease and become void.

2. Further Assurances. Grantee hereby authorizes Grantor or an authorized representative of Grantor to (i) record this Termination with the United States Patent and Trademark Office or the United States Copyright Office, as applicable, (ii) file UCC financing statement amendments with the applicable filing office in order to memorialize the release and discharge of the security interest of Grantee in the Intellectual Property Collateral and/or (iii) otherwise record or file this Termination in the applicable governmental office or agency. Grantee further agrees to execute and deliver to Grantor any and all further documents and instruments, and do any and all further acts which Grantor (or its agents or designees) reasonably requests (at Grantor's sole cost and expense) in order to confirm this Termination and Grantor's right, title and interest in, to and under the Intellectual Property Collateral.

IN WITNESS WHEREOF, Grantee has caused this Termination to be executed by its duly authorized officer as of the date first written above.

COMERICA BANK.

A handwritten signature in black ink, appearing to read 'Natali Amir', is written over a horizontal line. The signature is stylized and cursive.

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

Name: Natali Amir

Title: Vice President

**Schedule A**

**Copyrights**

None.

**Schedule B**

**Patents**

See attached.

Awarded	Awarded Patent #	Award Date	Inventor	Country	Title	Short Description
TIDAP001	9191435 B2	2015-11-17	Isaac R. Nassi	U.S.	Selective Data Migration Or Remapping Of Virtual Processors To Provide Required Data Accessibility To Processor Cores	Covers hierarchical nature of a distributed virtual machine, memory addressing, resource migration
TIDAP001C1	9609048 B1	2017-03-28	Isaac R. Nassi	U.S.	Resource Request And Transfer In A Multi-Node Distributed System	Use of machine learning as determined by non-linear weighted polynomial for migration decision making
TIDAP002	10187452 B2	2019-01-22	Isaac R. Nassi	U.S.	Hierarchical Dynamic Scheduling	Scheduling virtual processors and binding them to physical processors
TIDAP001C2	10205772 B2	2019-02-12	Isaac R. Nassi	U.S.	Saving and Resuming Continuation on a Physical Processor After Virtual Processor Stalls	How to migrate virtual processors between nodes
TIDAP006	10353736 B2	2019-07-16	Isaac R. Nassi et al	U.S.	Associating Working Sets and Threads	Using threads to compute working sets across a distributed virtual machine
TIDAP005KR	10-2051282	2019-11-27	Isaac R. Nassi	Korea	Network Attached Memory Using Selective Resource Migration	Use of remote memory to increase perceived total memory in a distributed virtual machine
TIDAP005JP	6652646	2020-01-27	Isaac R. Nassi	Japan	Network Attached Memory Using Selective Resource Migration	Use of remote memory to increase perceived total memory in a distributed virtual machine
TIDAP011	10579274 B2	2020-03-03	Isaac R. Nassi et al	U.S.	Hierarchical Stalling Strategies For Handling Stalling Events In A Virtualized Environment	Enhanced and short-circuited machine learning algorithms for managing resource migration in a distributed virtual machine
TIDAP007	10579421 B2	2020-03-03	Isaac R. Nassi et al	U.S.	Dynamic Scheduling Of Virtual Processors In A Distributed System	Enhancements to TidalTree, covering optimizations of hierarchical dynamic scheduling
TIDAP010	10620992 B2	2020-04-14	Isaac R. Nassi et al	U.S.	Resource Migration Negotiation	Making decisions about when to move pages and when not to, based on negotiation among nodes in a distributed virtual machine
TIDAP001C3	10623479 B2	2020-04-14	Isaac R. Nassi	U.S.	Selective Migration of Resources or Remapping of Virtual Processors to Provide Access to Resources	Optimizations related to synchronous and asynchronous events that trigger resource migration.
TIDAP002C1	10645150 B2	2020-05-05	Isaac R. Nassi	U.S.	Hierarchical Dynamic Scheduling	Scheduling virtual processors and binding them to physical processors
TIDAP005GB	3356936	2020-05-27	Isaac R. Nassi	U.K.	Network Attached Memory Using Selective Resource Migration	Use of remote memory to increase perceived total memory in a distributed virtual machine
TIDAP005FR	3356936	2020-05-27	Isaac R. Nassi	France	Network Attached Memory Using Selective Resource Migration	Use of remote memory to increase perceived total memory in a distributed virtual machine
TIDAP005EP	3356936	2020-05-27	Isaac R. Nassi	Europe PC	Network Attached Memory Using Selective Resource Migration	Use of remote memory to increase perceived total memory in a distributed virtual machine
TIDAP005DE	602016037237.1	2020-05-27	Isaac R. Nassi	Germany	Network Attached Memory Using Selective Resource Migration	Use of remote memory to increase perceived total memory in a distributed virtual machine
TIDAP012	10783000 B2	2020-09-22	Isaac R. Nassi et al	U.S.	Associating Working Sets and Threads	Using cascaded machine learning decision making for resource migration in a distributed virtual machine
TIDAP012	10817347 B2	2020-10-27	Isaac R. Nassi et al	U.S.	Entanglement of Pages and Guest Threads	Using Guest Threads to associate sets of pages to form optimized working sets
TIDAP017	11023135 B2	2021-06-01	Isaac R. Nassi et al	U.S.	Handling Frequently Accessed Pages	Migration decision-making and tracking of pages that are very frequently written across the cluster
TIDAP014	11050620 B2	2021-06-29	David P. Reed et al	U.S.	Dynamic Reconfiguration Of Resilient Logical Modules In A Software Defined Server	distributed virtual machine, and how to dynamically scale a software defined server up or down as needed
TIDAP006JP	6,924,820	2021-08-04	Isaac R. Nassi	Japan	Associating Working Sets and Threads	Using threads to compute working sets across a distributed virtual machine
TIDAP001C4	11159605 B2	2021-10-26	Isaac R. Nassi	U.S.	Hierarchical Dynamic Scheduling	Continuation patent on scheduling virtual processors across nodes in a distributed virtual machine
TIDAP015	11175927 B2	2021-11-16	David P. Reed et al	U.S.	Fast Boot	Use of dormant pages to speed up the boot process when a distributed virtual machine is started or restarted

TIDAP005CN	ZL201680069485.7	2021-11-16	Isaac R. Nassi et al.	China	Network Attached Memory Using Selective Resource Migration	Use of remote memory to increase perceived total memory in a distributed virtual machine
TIDAP005	11240334 B2	2022-02-01	Isaac R. Nassi et al.	US	Network Attached Memory Using Selective Resource Migration	Use of remote memory to increase perceived total memory in a distributed virtual machine
TIDAP013	11275600	2022-03-15	Leon Dang, et al	US	Virtualized I/O	Handling and optimization techniques for local and forwarded I/O operations in a distributed virtual machine including remote delivery and acknowledgements of remote interrupts
TIDAP010C1	16/799593	2020-02-24	Ike Nassi et al	U.S.	Resource migration negotiation	Continuation patent. Making decisions about when to move pages and when not to, based on negotiation among nodes in a distributed virtual machine
	Awarded Patents		27			
	Implemented Patents		11			
	Partially Implemented		2			
	All Claims Approved US		0			
	US		19			
	Net US Awarded Patents		19			
<b>Provisionals</b>						
TIDAP019	17/081529	2019-10-30	Brian D. Moffet	US, PCT	Goal-Directed Software-Defined NUMA Working Set Management	a goal is set for a virtual NUMA domain, and the HK makes decisions to achieve the virtual NUMA configuration (best efforts)
TIDAP021	63/298580	2022-01-22	Gary Smerdon et al	US	Non-Disruptive Compute-Server Preventive Health Check And Maintenance	How to perform periodic hardware health checks, maintenance and updates without having to restart an operating system in a distributed virtual machine
TIDAP022	63/298581	2022-01-22	Isaac R. Nassi et al	US	Wear-Leveling Of DRAM In Computers	How to non-disruptively perform DRAM health checks and how to detect and manage unreliable memory in a non-disruptive way.
TIDAP023	63/345891	2022-05-22	Smerdon et al	US	SYSTEM WEAR LEVELING	Present a sorted list of estimated life remaining. Use it at boot time or periodically.
TIDAP024	63/345895	2022-05-22	Smerdon et al	US	WEAR-LEVELING OF MEMORY	Minimize the usage of the memory areas that are more likely to fail, at boot time, periodically, by tracking usage
TIDAP025	63/345708	2022-05-25	Smerdon et al	US	NON-DISRUPTIVE COMPUTE-SERVER PREVENTIVE HEALTH CHECK AND MAINTENANCE	SBS, performing of diagnostics (e.g., Advanced Memory Test), use of fast restart (e.g., Tsunami) in the context of preventive diagnosis and maintenance
TIDAP026	63/356865	2022-06-22	Fitzpatrick et al	US	High Availability and Disaster Recovery	In a situation where a running secondary server can be used to replace a primary, the secondary can operate in a reduced configuration until it is needed to inflate based on the failure of the primary.
TIDAP011C1	16/738862	2020-01-09	Isaac R. Nassi et al	US	Hierarchical Stalling Strategies for Handling Stalling Events in a Virtualized Environment	
	Provisional Patents		8			



**Schedule C**

**Trademarks**

<u>Description</u>	<u>Registration / Application Number</u>	<u>Registration / Application Date</u>
TidalScale Trademark	Reg. No. 4,664,354	Dec. 30, 2014
Trademark (WaveRunner Registered) - 2018.03.13	Reg. No. 5,425,224	Mar. 13, 2018
Trademark (WaveWatcher Registered) - 2019.01.08	Reg. No. 5,651,373	Jan. 08, 2019
TidalGuard Trademark notification	U.S. Application Serial No. 90852901	June 8, 2022
Wavewatcher.TM Publication Notification	U.S. Application Serial No. 90870409	June 8, 2022