

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT7710659

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST IN TRADEMARK, PATENT, AND COPYRIGHT RIGHTS
CONVEYING PARTY DATA	
Name	Execution Date
VIRTUOZZO INTERNATIONAL GMBH	12/21/2022
ONAPP LIMITED	12/21/2022
RECEIVING PARTY DATA	
Name:	WILMINGTON TRUST (LONDON) LIMITED
Street Address:	THIRD FLOOR, 1 KING'S ARMS YARD
City:	LONDON
State/Country:	UNITED KINGDOM
Postal Code:	EC2R 7AF
PROPERTY NUMBERS Total: 122	
Property Type	Number
Patent Number:	9672295
Patent Number:	10949289
Patent Number:	11016684
Patent Number:	11216566
Application Number:	17862768
Patent Number:	11356255
Patent Number:	11385807
Patent Number:	11029869
Patent Number:	11507362
Patent Number:	11231986
Patent Number:	11159393
Patent Number:	11416155
Patent Number:	7076633
Patent Number:	7222132
Patent Number:	7099948
Patent Number:	7209973
Patent Number:	7886016
Patent Number:	7325017
Patent Number:	7293033

PATENT

Property Type	Number
Patent Number:	7461148
Application Number:	17137843
Patent Number:	7472384
Patent Number:	7328225
Patent Number:	7418620
Patent Number:	7665090
Patent Number:	7698400
Patent Number:	7461144
Patent Number:	7502861
Patent Number:	7904901
Patent Number:	7890605
Patent Number:	7426565
Patent Number:	7469323
Patent Number:	7941813
Patent Number:	8539137
Patent Number:	7783665
Patent Number:	7676526
Patent Number:	8069218
Patent Number:	8145740
Patent Number:	7552310
Patent Number:	7958097
Patent Number:	8694637
Patent Number:	8015558
Patent Number:	8572370
Patent Number:	8577940
Patent Number:	8010495
Patent Number:	7975017
Patent Number:	7941552
Patent Number:	8463871
Patent Number:	7971028
Patent Number:	7930382
Patent Number:	7877411
Patent Number:	8166565
Patent Number:	8141096
Patent Number:	7831643
Patent Number:	7823009
Patent Number:	8397306
Patent Number:	8078717

Property Type	Number
Patent Number:	8171504
Patent Number:	8805947
Patent Number:	8250183
Patent Number:	8386428
Patent Number:	8356293
Patent Number:	8612284
Patent Number:	8909800
Patent Number:	7974985
Patent Number:	8725963
Patent Number:	8312478
Patent Number:	8539515
Patent Number:	8763159
Patent Number:	8789034
Patent Number:	9348819
Patent Number:	9286310
Patent Number:	8843921
Patent Number:	8839455
Patent Number:	9852198
Patent Number:	9003131
Patent Number:	9106537
Patent Number:	9274958
Patent Number:	9246891
Patent Number:	9063821
Patent Number:	9268698
Patent Number:	9485219
Patent Number:	9448786
Patent Number:	9621643
Patent Number:	9667490
Patent Number:	9678880
Patent Number:	10216529
Patent Number:	9436968
Patent Number:	9910768
Patent Number:	10025924
Patent Number:	9548964
Patent Number:	11403086
Patent Number:	10037334
Patent Number:	10248449
Patent Number:	10452408

Property Type	Number
Patent Number:	9766915
Patent Number:	9753762
Patent Number:	10360187
Patent Number:	9817840
Patent Number:	10346313
Patent Number:	9716688
Patent Number:	10783136
Patent Number:	9760400
Patent Number:	10185597
Patent Number:	10365948
Patent Number:	10042661
Patent Number:	10681008
Patent Number:	10761872
Patent Number:	10891153
Patent Number:	11113400
Patent Number:	11126563
Patent Number:	11074114
Patent Number:	11023318
Patent Number:	10795659
Patent Number:	10892960
Patent Number:	11385981
Patent Number:	11216343
Patent Number:	10713181
Patent Number:	10684884
Patent Number:	10733109
Patent Number:	10824463
Patent Number:	10915335

CORRESPONDENCE DATA

Fax Number:

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.

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Email: iprecordations@whitecase.com

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Address Line 4: LOS ANGELES, CALIFORNIA 90071

ATTORNEY DOCKET NUMBER: 4491745-0011-S216

NAME OF SUBMITTER: JUSTINE LU

SIGNATURE:	/Justine Lu/
DATE SIGNED:	12/22/2022
Total Attachments: 16 source=Virtuozzo_Bridgepoint - IP Security Agreement (Executed)#page1.tif source=Virtuozzo_Bridgepoint - IP Security Agreement (Executed)#page2.tif source=Virtuozzo_Bridgepoint - IP Security Agreement (Executed)#page3.tif source=Virtuozzo_Bridgepoint - IP Security Agreement (Executed)#page4.tif source=Virtuozzo_Bridgepoint - IP Security Agreement (Executed)#page5.tif source=Virtuozzo_Bridgepoint - IP Security Agreement (Executed)#page6.tif source=Virtuozzo_Bridgepoint - IP Security Agreement (Executed)#page7.tif source=Virtuozzo_Bridgepoint - IP Security Agreement (Executed)#page8.tif source=Virtuozzo_Bridgepoint - IP Security Agreement (Executed)#page9.tif source=Virtuozzo_Bridgepoint - IP Security Agreement (Executed)#page10.tif source=Virtuozzo_Bridgepoint - IP Security Agreement (Executed)#page11.tif source=Virtuozzo_Bridgepoint - IP Security Agreement (Executed)#page12.tif source=Virtuozzo_Bridgepoint - IP Security Agreement (Executed)#page13.tif source=Virtuozzo_Bridgepoint - IP Security Agreement (Executed)#page14.tif source=Virtuozzo_Bridgepoint - IP Security Agreement (Executed)#page15.tif source=Virtuozzo_Bridgepoint - IP Security Agreement (Executed)#page16.tif	

SECURITY INTEREST IN TRADEMARK, PATENT, AND COPYRIGHT RIGHTS

This GRANT OF SECURITY INTEREST IN TRADEMARK, PATENT, AND COPYRIGHT RIGHTS (this “Agreement”), dated as of December 21, 2022, is made by VIRTUOZZO INTERNATIONAL GMBH, a company duly incorporated under the laws of Switzerland and a limited liability company registered with the commercial register of the canton of Schaffhausen under registration number CHE-274.027.033 (“Virtuozzo International GmbH”), and ONAPP LIMITED a company duly incorporated under the laws of Gibraltar and a private company limited by shares with registered number 99571 (“OnApp Limited”, and together with Virtuozzo International GmbH, “Grantors”, and each a “Grantor”), in favor of Wilmington Trust (London) Limited, as Security Agent (as defined below) for the benefit of the Secured Parties in connection with that certain Senior Facilities Agreement, dated as of November 1, 2022 (as the same may be amended, restated, amended and restated, supplemented or otherwise modified from time to time, the “Credit Agreement”), among VZ Hybrid Holdings Limited, a private limited company registered in England and Wales with its registered address at C/O Fieldfisher LLP, Riverbank House, 2 Swan Lane, London, United Kingdom, EC4R 3TT and with registered number 14412257 (the “Parent”), VZ Hybrid Compute (UK) Limited, a private limited company registered in England and Wales with its registered address at C/O Fieldfisher LLP, Riverbank House, 2 Swan Lane, London, United Kingdom, EC4R 3TT and with registered number 05413991 (the “Company”), and WILMINGTON TRUST (LONDON) LIMITED as agent for the other Secured Parties (the “Agent”) and Security Agent.

W I T N E S S E T H:

WHEREAS, pursuant to the Credit Agreement, the Lenders have severally agreed to make Loans to the Company upon the terms and subject to the conditions set forth therein;

WHEREAS, in connection with the Credit Agreement, each Grantor and any Subsidiaries that become a party thereto have executed and delivered the Security Agreement, dated as of December 21, 2022 in favor of the Security Agent (together with all amendments, restatements, supplements and modifications, if any, from time to time thereafter made thereto, the “Security Agreement”);

WHEREAS, pursuant to the Security Agreement, each Grantor has granted to the Security Agent, for the benefit of the Secured Parties, a lien on and security interest in, all of its respective right, title and interest in, to and under certain Intellectual Property, including the Trademarks, Patents, and Copyrights, that is not Excluded Property; and

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and in order to induce the Lenders to make loans to the Company and to make their respective extensions of credit under the Credit Agreement, each Grantor agrees, for the benefit of the Security Agent and the Secured Parties, as follows:

1. Definitions. Unless otherwise defined herein or the context otherwise requires, terms used in this agreement, including its preamble and recitals, have the meanings provided or provided by reference in the credit agreement or the security agreement, as context dictates.

2. Grant of security interest.

2.1 Each Grantor hereby grants a lien on and security interest in all of such Grantor's right, title and interest in, to and under the Trademarks, Patents, and Copyrights that are not excluded property (including those items listed on Schedule A hereto), including the goodwill associated with such Trademarks and the right to receive all Proceeds therefrom (collectively, the "Collateral"), to the Security Agent for the benefit of the Secured Parties as collateral security for the prompt and complete payment and performance when due (whether at the stated maturity, by acceleration or otherwise) of the obligations; provided that, applications in the United States Patent and Trademark Office to register trademarks or service marks on the basis of such grantor's "intent to use" such trademarks or service marks will not be deemed to be Collateral unless and until an amendment to allege use or a statement of use has been filed and accepted by the United States Patent and Trademark office, whereupon such application shall be automatically subject to the security interest granted herein and deemed to be included in the Collateral.

2.2. Each Grantor hereby irrevocably authorizes the Security Agent and its Affiliates, counsel and other representatives or designees, at any time and from time to time, to file or record financing statements, amendments to financing statements and, with notice to the applicable Grantors, other filing or recording documents or instruments with respect to the Collateral in such form and in such offices as the Security Agent reasonably determines appropriate to perfect the Security Interests of the Security Agent under this Security Agreement, and such financing statements and amendments may describe the Collateral covered thereby as "all assets", "all assets now owned or hereafter acquired" or words of similar effect as being of equal scope or with greater detail. the Security Agent (or its designee) is further authorized to file with the United States Patent and Trademark Office, United States Copyright Office or any similar office in any state of the United States (or any successor office), with the signature of each applicable Grantor, such documents as may be necessary or advisable for the purpose of perfecting, confirming, continuing, enforcing or protecting the Security Interest granted hereunder by the Grantor and naming the Grantor as debtor and the Security Agent, as the case may be, as secured party.

3. Purpose. This Agreement has been executed and delivered by each Grantor for the purpose of recording the grant of security interest herein with the United States Patent and Trademark Office and United States Copyright Office. The security interest granted hereby has been granted to the Secured Parties in connection with the Security Agreement and is expressly subject to the terms and conditions thereof. The Security Agreement (and all rights and remedies of the secured parties thereunder) shall remain in full force and effect in accordance with its terms.

4. Acknowledgment. Each Grantor does hereby further acknowledge and affirm that the rights and remedies of the Secured Parties with respect to the security interest in the Collateral granted hereby are more fully set forth in the Credit Agreement and the Security Agreement. In the event of any conflict between the terms of this Agreement and the terms of the Security Agreement, the terms of the Security Agreement shall govern. In the event of any conflict between the terms of this Agreement and the terms of the Credit Agreement, the terms of the Credit Agreement shall govern.

5. Swiss limitations.

5.1 If and to the extent that the security interest granted under this Agreement is enforced for obligations of Affiliates of Virtuozzo International GmbH which are not its wholly-owned direct or indirect Subsidiaries and if this would constitute a repayment of capital (*Einlagerückgewähr*) (including by way of a violation of the legally protected reserves (*gesetzlich geschützte Reserven*)) or the payment of a (constructive) dividend (*Gewinnausschüttung*) by Virtuozzo International GmbH and thus be restricted under then applicable Swiss corporate law (the "**Restricted Obligations**"), the use of such enforcement proceeds shall be limited to the amount of the unrestricted equity capital surplus available for distribution to the quotaholders of Virtuozzo International GmbH at the time of enforcement of the security interest granted under this Agreement (the "**Maximum Amount**"), provided that this is a requirement under then applicable mandatory Swiss law and understood that such limitation shall not prevent the Security Agent from applying such enforcement proceeds in excess of the Maximum Amount, but that it shall merely postpone the performance date therefor until the earliest time or times that this is again permitted under applicable law (and understood further that Virtuozzo International GmbH shall do any and all acts, including returning any claims, receivables, proceeds or payments to the Security Agent, to allow such continued enforcement or continued use of the enforcement proceeds).

5.2 In relation to an enforcement of the security interest granted under this Agreement in satisfaction of Restricted Obligations, if and to the extent that the proceeds from such enforcement are by law subject to Swiss withholding tax, Virtuozzo International GmbH shall use its best efforts to mitigate to the extent possible any Swiss withholding tax obligations to be levied on the use of the enforcement proceeds of the security interest granted under this Agreement, in particular through a notification procedure. To the extent a notification procedure is not available, the Security Agent undertakes to withhold from the enforcement proceeds of the security interest granted under this Agreement an amount equivalent to the Swiss withholding tax at the then applicable rate, and subject to any applicable double taxation treaty or any other applicable treaty, that may be due by Virtuozzo International GmbH to the Swiss Federal Tax Administration from the enforcement of the security interest granted under this Agreement by the Security Agent under this Agreement, and forward such amount to the Swiss Federal Tax Administration, in the name and for the account of Virtuozzo International GmbH, upon presentation by Virtuozzo International GmbH to the Security Agent of the relevant form of the Swiss Federal Tax Administration, together with its payment order form (which presentation shall be made, if needed, on a monthly basis), it being specified that (i) Virtuozzo International GmbH shall, and shall procure that its Affiliates, fully cooperate in any mitigating efforts and in any efforts relating to the transfer of any refunds to the order of the Security Agent, and (ii) Virtuozzo International GmbH shall fill in and prepare the relevant form of the Swiss Federal Tax Administration and submit it to the Security Agent for approval, which approval shall not be unreasonably withheld.

5.3 If Swiss Withholding Tax is to be withheld in accordance with Clause 5.2, the Security Agent shall be entitled to further apply proceeds from the enforcement of the security interest granted under this Agreement against the Restricted Obligations up to an amount which is equal to that amount which would have been obtained if no withholding of Swiss Withholding Tax were required and which has not otherwise been obtained by the Secured Parties under any Finance Document, whereby such further enforcements/applications of proceeds shall always be limited to the Maximum Amount.

5.4 Virtuozzo International GmbH shall, if and to the extent requested by the Security Agent or required under then applicable Swiss law, provide the Security Agent with an interim balance sheet audited by the statutory auditors of Virtuozzo International GmbH setting out the Maximum Amount, take any further corporate and other action as may be required by law (such as managing directors and quotaholders' approvals and the receipt of any confirmations from Virtuozzo International GmbH's statutory auditors) and other measures necessary or useful to allow an enforcement, foreclosure or realization of the security interest granted under this Agreement with a minimum of limitations.

5.5 If the enforcement of Restricted Obligations would be limited due to the effects referred to in this Clause 5, then Virtuozzo International GmbH shall (i) to the extent permitted by applicable law, revalue and/or realize any of its assets that are shown on its balance sheet with a book value that is significantly lower than the market value of such assets, and (ii) reduce its share capital to the minimum allowed under then applicable law.

6. Counterparts. The provisions of section 8.7 of the Security Agreement are incorporated herein by reference, mutatis mutandis.

7. **GOVERNING LAW. THIS AGREEMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY, AND CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK.**

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed and delivered by their respective officers thereunto duly authorized as of the day and year first above written.

VIRTUOZZO INTERNATIONAL GMBH,
as Grantor

DocuSigned by:
By: Mikhail Ryabichev
Name: Mikhail Ryabichev
Title: Chair of the Management Board

ONAPP LIMITED

EXECUTED AS A DEED

By: *ONAPP LIMITED*

Signature of Director

Name of Director

in the presence of

Signature of witness

Name of witness

Address of witness

Occupation of witness

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed and delivered by their respective officers thereunto duly authorized as of the day and year first above written.

VIRTUOZZO INTERNATIONAL GMBH,
as Grantor

By:

ONAPP LIMITED

EXECUTED AS A DEED

By: *ONAPP LIMITED*

[Signature]

Signature of Director

ERIQUEZ STEINER

Name of Director

in the presence of

[Signature]

Signature of witness

NITIN K. ROSSMAN

Name of witness

4534 MAPLE AVE

Address of witness

BETHESDA, MD 20814

PROFESSOR OF LAW

Occupation of witness

WILMINGTON TRUST (LONDON) LIMITED,
as the Security Agent

By: C. Hurford
Name: CHRIS HURFORD
Title: VICE PRESIDENT

SCHEDULE A

COPYRIGHTS

Title	Reg. No.	Reg. Date	Owner
Parallels File Cache (pfcache)	TX0009031299	02-NOV-2021	VIRTUOZZO INTERNATIONAL GMBH

TRADEMARKS

Trademark	App. No.	App. Date	Reg. No.	Reg. Date	Owner
ONAPP	90747901	01-JUN-2021	N/A	N/A	OnApp Limited
READYKERNEL	87032893	11-MAY-2016	5376094	09-JAN-2018	VIRTUOZZO INTERNATIONAL GMBH
OPENVZ	86742393	31-AUG-2015	4959568	17-MAY-2016	VIRTUOZZO INTERNATIONAL GMBH
CRIU	86742482	31-AUG-2015	4959572	17-MAY-2016	VIRTUOZZO INTERNATIONAL GMBH
VIRTUOZZO	85673902	11-JUL-2012	4295582	26-FEB-2013	VIRTUOZZO INTERNATIONAL GMBH
CONTAINERSs	77325087	08-NOV-2007	3850456	21-SEP-2010	VIRTUOZZO INTERNATIONAL GMBH

PATENTS

Title	Patent No.	Patent Date	App. No.	App. Date	Owner
Computer system	9672295	2017-06-06	14317080	2014-06-27	ONAPP LIMITED
System and method for booting servers in a distributed storage to improve fault tolerance	N/A	2022-11-03	17862768	2022-07-12	VIRTUOZZO INTERNATIONAL GMBH
System and method for maintaining data integrity of data on a storage device	10949289	2021-03-16	16235330	2018-12-28	VIRTUOZZO INTERNATIONAL GMBH
System and method for managing data and metadata where respective backing block devices are accessed based on whether request indicator indicates the data or the metadata and accessing the backing block devices without file system when the request indicator is not included in request	11016684	2021-05-25	16235430	2018-12-28	VIRTUOZZO INTERNATIONAL GMBH
System and method for encryption of ephemeral storage	11216566	2022-01-04	16731381	2019-12-31	VIRTUOZZO INTERNATIONAL GMBH

Title	Patent No.	Patent Date	App. No.	App. Date	Owner
System and method for securely connecting applications to middleware services in a cloud platform	11356255	2022-06-07	16731568	2019-12-31	VIRTUOZZO INTERNATIONAL GMBH
System and method for recovering a node in a cloud infrastructure after an intrusion	11385807	2022-07-12	16731988	2019-12-31	VIRTUOZZO INTERNATIONAL GMBH
System and method for multiqueued access to cloud storage	11029869	2021-06-08	16235579	2018-12-28	VIRTUOZZO INTERNATIONAL GMBH
System and method for generating a binary patch file for live patching of an application	11507362	2022-11-22	17062743	2020-10-05	VIRTUOZZO INTERNATIONAL GMBH
Systems and methods for collecting optimal set of log files for error reports	11231986	2022-01-25	17085994	2020-10-30	VIRTUOZZO INTERNATIONAL GMBH
Systems and methods for gradually updating a software object on a plurality of computer nodes	N/A	2022-06-30	17137843	2020-12-30	VIRTUOZZO INTERNATIONAL GMBH
System and method of unifying and deploying a microservice-based application platform	11159393	2021-10-26	17145839	2021-01-11	VIRTUOZZO INTERNATIONAL GMBH
System and method for managing blocks of data and metadata utilizing virtual block devices	11416155	2022-08-16	17329582	2021-05-25	VIRTUOZZO INTERNATIONAL GMBH
Hosting service providing platform system and method	7076633	2006-07-11	10005590	2001-10-26	VIRTUOZZO INTERNATIONAL GMBH
Common template file system tree for virtual environments and virtual servers	7222132	2007-05-22	09908252	2001-07-18	VIRTUOZZO INTERNATIONAL GMBH
Virtual computing environment	7099948	2006-08-29	09918031	2001-07-30	VIRTUOZZO INTERNATIONAL GMBH
Distributed network data storage system and method	7209973	2007-04-24	09918032	2001-07-30	VIRTUOZZO INTERNATIONAL GMBH
Distributed transactional network storage system	7886016	2011-02-08	10293196	2002-11-13	VIRTUOZZO INTERNATIONAL GMBH
Method of implementation of data storage quota	7325017	2008-01-29	10670093	2003-09-24	VIRTUOZZO INTERNATIONAL GMBH
System and method for providing effective file-sharing in a computer system to allow concurrent multi-user access	7293033	2007-11-06	10691066	2003-10-21	VIRTUOZZO INTERNATIONAL GMBH
Virtual private server with isolation of system components	7461148	2008-12-02	10703594	2003-11-10	VIRTUOZZO INTERNATIONAL GMBH

Title	Patent No.	Patent Date	App. No.	App. Date	Owner
System, method and computer program product for on-the-fly patching of executable code	7472384	2008-12-30	10725016	2003-12-02	VIRTUOZZO INTERNATIONAL GMBH
System, method and computer program product for multi-level file-sharing by concurrent users	7328225	2008-02-05	10729365	2003-12-08	VIRTUOZZO INTERNATIONAL GMBH
Fault tolerant distributed storage method and controller using (N,K) algorithms	7418620	2008-08-26	11004078	2004-12-06	VIRTUOZZO INTERNATIONAL GMBH
System, method, and computer program product for group scheduling of computer resources	7665090	2010-02-16	10793881	2004-03-08	VIRTUOZZO INTERNATIONAL GMBH
Dedication of administrative servers to management of server functions in a multi-server environment	7698400	2010-04-13	10826280	2004-04-19	VIRTUOZZO INTERNATIONAL GMBH
Virtual private server with enhanced security	7461144	2008-12-02	10837757	2004-05-04	VIRTUOZZO INTERNATIONAL GMBH
System and method for providing services for offline servers using the same network address	7502861	2009-03-10	11132334	2005-05-19	VIRTUOZZO INTERNATIONAL GMBH
System and method for controlling installed third party software components	7904901	2011-03-08	11264098	2005-11-02	VIRTUOZZO INTERNATIONAL GMBH
System and method for pre-installing of virtual private server files	7890605	2011-02-15	11264100	2005-11-02	VIRTUOZZO INTERNATIONAL GMBH
Virtual computing environment	7426565	2008-09-16	11279902	2006-04-17	VIRTUOZZO INTERNATIONAL GMBH
Hosting service platform system and method	7469323	2008-12-23	11382047	2006-05-07	VIRTUOZZO INTERNATIONAL GMBH
System and method for using virtual machine for driver installation sandbox	7941813	2011-05-10	11673585	2007-02-11	VIRTUOZZO INTERNATIONAL GMBH
System and method for management of virtual execution environment disk storage	8539137	2013-09-17	11757598	2007-06-04	VIRTUOZZO INTERNATIONAL GMBH
Effective file-sharing among virtual environments	7783665	2010-08-24	11779258	2007-07-17	VIRTUOZZO INTERNATIONAL GMBH
System, method and computer program product for multi-level file-sharing by concurrent users	7676526	2010-03-09	11934752	2007-11-03	VIRTUOZZO INTERNATIONAL GMBH

Title	Patent No.	Patent Date	App. No.	App. Date	Owner
System, method and computer program product for process migration with planned minimized down-time	8069218	2011-11-29	11963904	2007-12-24	VIRTUOZZO INTERNATIONAL GMBH
Virtual computing environment	8145740	2012-03-27	12189054	2008-08-08	VIRTUOZZO INTERNATIONAL GMBH
Virtualization and hosting service platform system and method	7552310	2009-06-23	12196872	2008-08-22	VIRTUOZZO INTERNATIONAL GMBH
Method and system for implementation of data storage quota	7958097	2011-06-07	12021162	2008-01-28	VIRTUOZZO INTERNATIONAL GMBH
Virtual private server with CPU time scheduler and isolation of system components	8694637	2014-04-08	12272580	2008-11-17	VIRTUOZZO INTERNATIONAL GMBH
System, method and computer program product for on-the-fly patching of executable code	8015558	2011-09-06	12335571	2008-12-16	VIRTUOZZO INTERNATIONAL GMBH
Accessing a remote virtual environment without user authentication	8572370	2013-10-29	12340903	2008-12-22	VIRTUOZZO INTERNATIONAL GMBH
Managing computer file system using file system trees	8577940	2013-11-05	11972556	2008-01-10	VIRTUOZZO INTERNATIONAL GMBH
Method and system for fast generation of file system snapshot bitmap in virtual environment	8010495	2011-08-30	12363736	2009-01-31	VIRTUOZZO INTERNATIONAL GMBH
Method and system for remote device access in virtual environment	7975017	2011-07-05	12393000	2009-02-25	VIRTUOZZO INTERNATIONAL GMBH
System and method for providing services for offline servers using the same network address	7941552	2011-05-10	12394005	2009-02-26	VIRTUOZZO INTERNATIONAL GMBH
Method and system for data backup with capacity and traffic optimization	8463871	2013-06-11	12471446	2009-05-25	VIRTUOZZO INTERNATIONAL GMBH
Virtualized computer platform providing hosting services	7971028	2011-06-28	12473154	2009-05-27	VIRTUOZZO INTERNATIONAL GMBH
Distributed network data storage system and method using cryptographic algorithms	7930382	2011-04-19	12539202	2009-08-11	VIRTUOZZO INTERNATIONAL GMBH
System and method for duplication of virtual private server files	7877411	2011-01-25	12543420	2009-08-18	VIRTUOZZO INTERNATIONAL GMBH

Title	Patent No.	Patent Date	App. No.	App. Date	Owner
Encryption and access method and system for peer-to-peer distributed file storage	8166565	2012-04-24	12566625	2009-09-24	VIRTUOZZO INTERNATIONAL GMBH
System, method, and computer program product for group scheduling of computer resources	8141096	2012-03-20	12697859	2010-02-01	VIRTUOZZO INTERNATIONAL GMBH
System, method and computer program product for multi-level file-sharing by concurrent users	7831643	2010-11-09	12718980	2010-03-07	VIRTUOZZO INTERNATIONAL GMBH
Fault tolerant distributed storage for cloud computing	7823009	2010-10-26	12819799	2010-06-21	VIRTUOZZO INTERNATIONAL GMBH
Security domain in virtual environment	8397306	2013-03-12	12889302	2010-09-23	VIRTUOZZO INTERNATIONAL GMBH
System and method for providing services for offline servers using the same network address	8078717	2011-12-13	13100506	2011-05-04	VIRTUOZZO INTERNATIONAL GMBH
System and method for using virtual machine for driver installation sandbox	8171504	2012-05-01	13104935	2011-05-10	VIRTUOZZO INTERNATIONAL GMBH
Method and system for remote device access in virtual environment	8805947	2014-08-12	13174500	2011-06-30	VIRTUOZZO INTERNATIONAL GMBH
System and method for pre-installing of virtual server files	8250183	2012-08-21	1320986	2011-02-04	VIRTUOZZO INTERNATIONAL GMBH
Method and system for fast generation of file system snapshot bitmap in virtual environment	8386428	2013-02-26	13221406	2011-08-30	VIRTUOZZO INTERNATIONAL GMBH
System and method for controlling installed third party software components	8356293	2013-01-15	13026257	2011-02-13	VIRTUOZZO INTERNATIONAL GMBH
Quality of service differentiated cloud storage	8612284	2013-12-17	13292986	2011-11-09	VIRTUOZZO INTERNATIONAL GMBH
Server cluster-based system and method for management and recovery of virtual servers	8909800	2014-12-09	13324860	2011-12-13	VIRTUOZZO INTERNATIONAL GMBH
System and method for duplication of virtual server files	7974985	2011-07-05	13007647	2011-01-16	VIRTUOZZO INTERNATIONAL GMBH
System and method for managing a virtual swap file for virtual environments	8725963	2014-05-13	13446676	2012-04-13	VIRTUOZZO INTERNATIONAL GMBH

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System and method for using virtual machine for driver installation sandbox	8312478	2012-11-13	13460908	2012-05-01	VIRTUOZZO INTERNATIONAL GMBH
System and method for using virtual machine for driver installation sandbox on remote system	8539515	2013-09-17	13674149	2012-11-12	VIRTUOZZO INTERNATIONAL GMBH
System and method for application license management in virtual environments	8763159	2014-06-24	13705221	2012-12-05	VIRTUOZZO INTERNATIONAL GMBH
Method for updating operating system without memory reset	8789034	2014-07-22	13716309	2012-12-17	VIRTUOZZO INTERNATIONAL GMBH
Method and system for file data management in virtual environment	9348819	2016-05-24	13724882	2012-12-21	VIRTUOZZO INTERNATIONAL GMBH
Common file caching for virtual private servers	9286310	2016-03-15	14065710	2013-10-29	VIRTUOZZO INTERNATIONAL GMBH
System and method for controlling installed third party software components	8843921	2014-09-23	13740324	2013-01-14	VIRTUOZZO INTERNATIONAL GMBH
Security domain in virtual environment	8839455	2014-09-16	13766837	2013-02-14	VIRTUOZZO INTERNATIONAL GMBH
Method and system for fast generation of file system snapshot bitmap in virtual environment	9852198	2017-12-26	13776873	2013-02-26	VIRTUOZZO INTERNATIONAL GMBH
Method and system for maintaining context event logs without locking in virtual machine	9003131	2015-04-07	13851154	2013-03-27	VIRTUOZZO INTERNATIONAL GMBH
Method for high availability of services in cloud computing systems	9106537	2015-08-11	13910824	2013-06-05	VIRTUOZZO INTERNATIONAL GMBH
System and method for cache management in systems that interface to cloud storage	9274958	2016-03-01	14170095	2014-01-31	VIRTUOZZO INTERNATIONAL GMBH
System and method for application license management in virtual environments	9246891	2016-01-26	14302111	2014-06-11	VIRTUOZZO INTERNATIONAL GMBH
Method for updating operating system without memory reset	9063821	2015-06-23	14337384	2014-07-22	VIRTUOZZO INTERNATIONAL GMBH
Method and system for maintaining context event logs without locking in virtual machine	9268698	2016-02-23	14680471	2015-04-07	VIRTUOZZO INTERNATIONAL GMBH

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VPN for containers and virtual machines in local area networks	9485219	2016-11-01	14710876	2015-05-13	VIRTUOZZO INTERNATIONAL GMBH
Method for updating operating system without memory reset	9448786	2016-09-20	14746870	2015-06-23	VIRTUOZZO INTERNATIONAL GMBH
System and method for joining containers running on multiple nodes of a cluster	9621643	2017-04-11	14814576	2015-07-31	VIRTUOZZO INTERNATIONAL GMBH
Method for high availability of services in cloud computing systems	9667490	2017-05-30	14823097	2015-08-11	VIRTUOZZO INTERNATIONAL GMBH
System and method for cache management in systems that interface to cloud storage	9678880	2017-06-13	14935566	2015-11-09	VIRTUOZZO INTERNATIONAL GMBH
Method and system for sharing driver pages	10216529	2019-02-26	14945678	2015-11-19	VIRTUOZZO INTERNATIONAL GMBH
System and method for application license management in virtual environments	9436968	2016-09-06	14985257	2015-12-30	VIRTUOZZO INTERNATIONAL GMBH
Method for memory management for virtual machines	9910768	2018-03-06	15161475	2016-05-23	VIRTUOZZO INTERNATIONAL GMBH
Taskless containers for enhanced isolation of users and multi-tenant applications	10025924	2018-07-17	15248044	2016-08-26	VIRTUOZZO INTERNATIONAL GMBH
VPN for containers and virtual machines in local area networks	9548964	2017-01-17	15333379	2016-10-25	VIRTUOZZO INTERNATIONAL GMBH
System and method for upgrading operating system of a container using an auxiliary host	11403086	2022-08-02	15337039	2016-10-28	VIRTUOZZO INTERNATIONAL GMBH
Memory management and sharing host OS files for Virtual Machines using execution-in-place	10037334	2018-07-31	15390589	2016-12-26	VIRTUOZZO INTERNATIONAL GMBH
Application containers running inside virtual machine	10248449	2019-04-02	15390857	2016-12-27	VIRTUOZZO INTERNATIONAL GMBH
System and method for intercepting data flow between a computer process and a file	10452408	2019-10-22	15393879	2016-12-29	VIRTUOZZO INTERNATIONAL GMBH
Method for creation of application containers inside OS containers	9766915	2017-09-19	15061343	2016-03-23	VIRTUOZZO INTERNATIONAL GMBH

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Implementing a host as a container or virtual machine	9753762	2017-09-05	15061630	2016-03-04	VIRTUOZZO INTERNATIONAL GMBH
Hybrid storage for virtual machines and containers	10360187	2019-07-23	15062070	2016-03-05	VIRTUOZZO INTERNATIONAL GMBH
Common file caching for virtual private servers	9817840	2017-11-14	15070279	2016-03-15	VIRTUOZZO INTERNATIONAL GMBH
Memory reclaim management for virtual machines	10346313	2019-07-09	15393511	2017-01-21	VIRTUOZZO INTERNATIONAL GMBH
VPN for containers and virtual machines in local area networks	9716688	2017-07-25	15399880	2017-01-06	VIRTUOZZO INTERNATIONAL GMBH
Management of garbage data in distributed systems	10783136	2020-09-22	15445858	2017-02-28	VIRTUOZZO INTERNATIONAL GMBH
System and method for joining containers running on multiple nodes of a cluster	9760400	2017-09-12	15476114	2017-03-31	VIRTUOZZO INTERNATIONAL GMBH
Method for high availability of services in cloud computing systems	10185597	2019-01-22	15607813	2017-05-30	VIRTUOZZO INTERNATIONAL GMBH
Implementing a host as a container or virtual machine	10365948	2019-07-30	15694977	2017-09-04	VIRTUOZZO INTERNATIONAL GMBH
Method for creation of application containers inside OS containers	10042661	2018-08-07	15708766	2017-09-19	VIRTUOZZO INTERNATIONAL GMBH
Use of checkpoint restore in user space for network socket management	10681008	2020-06-09	15838581	2017-12-12	VIRTUOZZO INTERNATIONAL GMBH
Windows memory reduction at boot time by memory page reset to zero for virtual machine	10761872	2020-09-01	15840619	2017-12-13	VIRTUOZZO INTERNATIONAL GMBH
System and method for switching file systems underneath working processes	10891153	2021-01-12	15851923	2017-12-22	VIRTUOZZO INTERNATIONAL GMBH
System and method for providing distributed compute platform on untrusted hardware	11113400	2021-09-07	15854402	2017-12-26	VIRTUOZZO INTERNATIONAL GMBH
System and method for tracking changes in system memory	11126563	2021-09-21	15857076	2017-12-28	VIRTUOZZO INTERNATIONAL GMBH

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System and method for executing applications in a non-native environment	11074114	2021-07-27	15858653	2017-12-29	VIRTUOZZO INTERNATIONAL GMBH
System and method for fast random access erasure encoded storage	11023318	2021-06-01	16014595	2018-06-21	VIRTUOZZO INTERNATIONAL GMBH
System and method for live patching processes in user space	10795659	2020-10-06	16178068	2018-11-01	VIRTUOZZO INTERNATIONAL GMBH
System and method of unifying and deploying a microservice-based application platform	10892960	2021-01-12	16229434	2018-12-21	VIRTUOZZO INTERNATIONAL GMBH
System and method for deploying servers in a distributed storage to improve fault tolerance	11385981	2022-07-12	16234940	2018-12-28	VIRTUOZZO INTERNATIONAL GMBH
System and method for accelerating processing in event-driven server-less computing	11216343	2022-01-04	16051954	2018-08-01	VIRTUOZZO INTERNATIONAL GMBH
Method and system for sharing driver pages	10713181	2020-07-14	16281468	2019-02-21	VIRTUOZZO INTERNATIONAL GMBH
Application containers running inside virtual machine	10684884	2020-06-16	16371825	2019-04-01	VIRTUOZZO INTERNATIONAL GMBH
Memory reclaim management for virtual machines	10733109	2020-08-04	16506569	2019-07-09	VIRTUOZZO INTERNATIONAL GMBH
Hybrid storage for virtual machines and containers	10824463	2020-11-03	16518472	2019-07-22	VIRTUOZZO INTERNATIONAL GMBH
System and method for intercepting data flow between computer process and system resource	10915335	2021-02-09	15654947	2019-10-16	VIRTUOZZO INTERNATIONAL GMBH